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Architectural theme: Porta Nigra. 8th century Roman gate/fortress, Trier, Germany, photo of contemporary drawing.
Photo by Paul Purcell.

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FROM THE EDITOR

The preliminary plans for SLA's Annual Conference are listed in this issue, providing members with an incentive for making arrangements to attend this worthwhile event. Each division has shown imagination in its planning.

The first feature article in this issue is an account by Peter Cziffra of the way in which he rearranged a large collection of periodicals, using his computer to simplify the process. The second feature consists of a description of a trip taken by Edward Valauskas to Romania in August 1991 as part of a group of American librarians conducting a workshop there. Our third feature is an account written by Wilda Newman about her attendance at the IFLA Conference held in Moscow in August 1991; this adds to the viewpoints given in the October issue of *Sci-Tech News* by other attendees at that meeting.

The design and erection of structures rely on the disciplines of architecture and construction engineering. The book review section for this issue features a number of reviews of books centering on these two categories. The cover photo for this issue illustrates a building typical of past centuries, in contrast to the modern structures which rely on the skills described in this issue's selection of books.

No doubt many members concentrate on reading the sections of this newsletter prepared for their own divisions. If so, they could be depriving themselves of some interesting material. For example, the October issue included amusing articles in the Aerospace and Engineering sections—look up your copy and see if you agree. Perhaps then you'll glance at the contents of sections from other divisions in this issue—one features a useful summary of the technique of mentoring new members while another provides a review of how one library keeps its clients informed about new technical reports from the Department of Defense. Still another article offers a humorous account of a librarian's phonic alphabet. So maybe you'll expand your reading practices if you weren't already a cover-to-cover reader.

ELLIS MOUNT

A COMPUTER-ASSISTED STACKSHIFT IN A UNIVERSITY SCIENCE LIBRARY

BY PETER CZIFFRA

Fine Hall Library is the mathematics, physics and statistics library for Princeton University. It contains over 100,000 volumes, of which at least half are bound journals. The journals have traditionally been shelved by title in three separate sections, each corresponding to the three separate subject areas covered by the collection.

In 1986 it became painfully obvious that massive stack shifts had to be done in the physics and mathematics sections. Since our library shelved by title, a major complication was that although most of our journal titles still followed the AACR1 rules, our Serials Cataloging Department was recataloging journal titles into AACR2 whenever there was even the most minor title change. It was inevitable that soon all currently received journals would be recataloged to AACR2. In addition, our Binding Division tended to get rather balky whenever the spine title of a journal that was being sent to the bindery did not match the main entry. We had also found that patrons considered the AACR2 form of a title much more natural than the AACR1 form. Who but a librarian would think of looking for *Optical Society of America. Journal?* It was therefore decided that the journals would have to be rearranged by AACR2 title during the stack shift, making the shift immeasurably more complex.

An additional complication was introduced by the decision to shelve earlier "continued from" versions of a title with the most recent version. The titles of many foreign journals, especially East European titles, have not only changed form over the years but also language. We have, for example, a Finnish journal whose title changed from Swedish to Finnish to Latin over the years. Since it was impractical to alter the spines of the huge number of journal volumes whose titles did not conform to AACR2, some way had to be found help patrons find journals in a situation in which the spine titles appeared to be in no order whatever.

Use of a Computer

This was a situation tailor-made for a computer, and fortunately, the author is an avid avocational programmer who has a computer at home with Knowledgeman. Knowledgeman, or Kman, as it is also known, is a powerful relational database management system for MSDOS machines, similar to Dbase, with a flexible programming language.

In order to create our database, we went through the journal stacks and gave each journal an AACR2 shelving title, trying to predict as much as possible the

titles that our Serials Cataloging Division would choose, and in some cases consulting them. Older titles, AACR1 titles, and other possible titles were put into a separate cross-references file. At the beginning the titles were recorded on paper and then keyboarded into my home computer. Later the titles and cross-references were entered directly into a Radio Shack model 100 laptop computer that was taken into the stacks. The data was then transferred to the home computer. If a title was the continuation of another title and the two were not shelved together, then a link was recorded in the database. Similarly, linkages were recorded between titles that were translations of each other.

Next, we recorded the total shelf space currently required by each title, and the fraction of a shelf that each title had grown within the last two years. Finally, a file was created that basically contained a map of the stack structure. This contained information such as the order in which the ranges were to be filled, how many sections each range had, and how many shelves occurred in each section. The latter could vary because we have some short shelves near windows, and some sections have coat hangers for overcoats in place of the lower five shelves.

At this point a Kman program, or "perform file," was written that calculated the total number of shelves available, and gave each a consecutive shelf number. Next it assigned a so-called "proportional" starting shelf location for each shelving title, by distributing the unoccupied shelf space in proportion to the amount that the journal had grown in the last two years. Since the proportional shelf location was quite likely to locate the beginning of a huge title like *Physical Review* 3.3 shelves into the second section of a range, the perform file also tried to assign an actual starting shelf location that would place the starting location of a major journal at a more reasonable point. Unfortunately, the algorithms that calculated the actual starting location did not, in many cases, work satisfactorily, so a second perform file was written that enabled me to go through the data to fine tune the starting locations.

Moving the Collection

After the starting locations were set, the computer printed a set of gummed labels that gave the shelving title and starting location for each journal, and these were glued to the edge of the shelf at each starting location. By compressing parts of the monograph collection that were no longer growing, we had been able to empty a number of ranges that could now be used for journals. We first moved the appropriate journals into their new locations in these empty ranges. Then, as much as possible, we moved titles in to their new locations into the gaps that had just been created by moving another title out. This way we were able to greatly minimize the number of times each title had to be moved.

Once the move was completed, another Kman program was used to prepare printed lists that are attached to the end of each journal range, identifying the journals that are shelved in that range. There is a separate list for each face, given as "face A" or "face B" of the range. The list gives the title of each journal whose starting location falls in that face, the section number and the position on the shelf on which it starts

(See figure 1). For example, "Sect. 2, sh. 7.80" means that the title starts 80 percent along the seventh shelf of the second section of that face. Since some titles may consist of as few as one volume, a precise location on the shelf may be necessary. The list also contains "SEE" cross-references referring the reader to the proper shelving title, links to earlier or later shelving titles, and in the case of titles, usually Russian, that have translations, a reference to the title of the translation. All of these are illustrated in figure 1.

Another product of this database is our *Reference list of serials,* which is an alphabetical list of all journals in the Fine Hall Library, which sector (mathematics, physics, or statistics) they are shelved in, plus a brief statement of holdings. An open holdings statement indicates that the journal or book series is still being received. The list includes cross-references, translations, and book series (recently added). For the latter, the list gives call numbers if the series is cataloged under a single call number. At the moment we are engaged in adding publishers so that we can better monitor the price increases of the bigger publishers. Because this is a computer database, any subset of the data can easily be extracted.

Since Knowledgeman is now very expensive, not widely used, and not available on my computer at work, I am in the process of transferring the database to Paradox, which is more widely available.

Figure 1.

Example of a range-end list

STACK: 3; RANGE: 2; FACE: B
Physics teacher [Sect. 1, Sh. 2.00]
.....
Physikalische Zeitschrift der Sowjetunion [Sect. 2, Sh. 7.80]
Physikalisches Vereins zu Franfurt am Main. Jahres-Bericht
SEE: Jahres-Bericht des physikalischen Vereins zu Frankfurt am Main Pisa. Universita. Istituto di Fisica.
Lavori
SEE: Lavori eseguiti nell' Istituto di fisica dell' Universita di Pisa
Pisma v zhurnal eksperimentalnoii teoreticheskoi fiziki [Sect. 3, Sh. 1.50]
Transl. in: JETP letters
Plasma physics [Sect. 3, Sh. 5.00]
Poggendorf Annalen
SEE: Annalen der Physik (Leipzig)
.....
Proceedings of the Cambridge Philosophical Society [Sect. 5, Sh. 4.00]
Later title: Mathematical proceedings of the Cambridge Philosophical Society [M]
Proceedings of the IEEE [Sect. 5, Sh. 7.80]

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TRANSYLVANIAN CONNECTIONS: REPORT FROM THE COLOCVII DE BIBLIOLOGIE BRASOV, ROMANIA, 10-12 AUGUST 1991

BY EDWARD J. VALAUSKAS

Almost two years ago, we watched in horror, on the evening news, as flames destroyed the Central University Library in Bucharest. With the offices of Nicolae Ceausescu's secret police occupying the top floor, the Library was a focal point in a bitter battle. In the end, the Romanian Army and the people of Romania won control of their country, but lost thousands of books and periodicals. In a country where books are treasured and reading encouraged, this loss was overwhelming.[1] In response to this disaster, the American library community has donated some quarter of a million books and periodicals, with the help of the U.S. Information Agency.

These efforts in aiding Romanian librarians have taken a new turn with the exchange of personnel and professional assistance. Most notably, a group of American librarians visited Romania in August before the International Federation of Library Associations and Institutions (IFLA) General Conference in Moscow to teach a workshop for Romanian librarians. I had an opportunity to be a member of this group, sponsored by the Romanian Ministry of Culture, the International Research & Exchanges Board Inc. (IREX), and the American Library Association (ALA). There were twelve members in this expedition—Marilyn Miller (University of North Carolina-Greensboro), Opritsa Popa (University of California, Davis), Anita Breland (IBM), Vinod Chachra (VTLS), Robert Doyle (ALA), S. Michael Malinconico (University of Alabama), Jordan Scepanski (California State University, Long Beach), James Moldovan (Biblioteca Centrala Universitara, Bucharest), Joseph Boisse (University of California, Santa Barbara), Nancy John (University of Illinois at Chicago), Lucinda Covert-Vail (San Francisco State University), Elaine Svenonius (UCLA) and me.

I acted as a counterweight to many of the discussions by my American colleagues, by providing demonstrations of library-specific software and compact discs, such as the *Grolier Electronic Encyclopedia* and *Facts on File News Digest.* I decided to use my own equipment for these demos, and so, with great fear, I delivered to the ALA offices in Chicago, boxes for shipment containing my Macintosh Portable, a compact disk drive, an external hard disk, a projection device, software, and power strips and converters. I was very concerned over the fate of this equipment both in transit and in Romania. We were visiting a country which had suffered greatly under the recently deposed Communist regime, where even the most basic teaching materials were scarce. Indeed, we also shipped two overhead projectors and six spare bulbs, on the advice of the U.S.

Embassy in Bucharest, as this sort of standard equipment was unavailable.

We arrived in Bucharest on Thursday, 8 August, and were greeted at the airport by staff of the National Library and Ministry of Culture. The next day, we were taken on tours of Bucharest and the National Library, and briefed on the state of Romanian librarianship. We traveled on the morning of Saturday, 10 August, to Brasov, in Transylvania. We were met by an anxious and enthusiastic body of some 100 librarians, many from public libraries around the country. While my colleagues met and spoke to our Romanian counterparts, I started the nervous process of unloading my equipment and setting up an area to see if it survived the journey.

There was a certain sense of anticipation as I unloaded the equipment. Help came from all corners on the first floor of the University Library in Brasov as I moved a table in place near a circuit to plug in power strips and surge protectors, to line up adaptors, and organize my computer and peripherals for testing. Their operation after the long trip was a relief to me and to those in the room, who looked over my shoulder at the screen, and started to ask a torrent of questions in English and French.

Schedule changes seemed inevitable, as we tried to accommodate the needs of our students as well as those of our hosts. The following day, 11 August, we decided to use a vacant classroom across the street from the Library for the demonstrations and so we carted the equipment. Little did I know that this migration meant that I would discover, through trial and error, some of the problems with the highly variable power in this part of the world. As the chairs filled, so did the tension, as power strips and circuits failed, as one device after another decided to blow a bulb or add the sickening scent of melting rubber, plastic and copper to the air. Luckily the Macintosh Portable and the files providing access to compact discs (for the *Grolier Electronic Encyclopedia* and the *Facts on File News Digest*) did not fold under the pressure of massive electrical spikes.

Lucinda Covert-Vail started the session with a comprehensive and intriguing overview of compact disc technology in libraries. At the end of her session, I once again tried to overcome the fumes, the dead bulbs, and failed circuits. The Portable managed to keep on working, so I invited the class to gather around the computer as I searched through the *Grolier* and *Facts on File* for information about Romania. The Romanians became agitated, excited, and quite vocal in their enthusiasm, pressing closer and closer and closer to the computer. I knelt before the machine and moved closer and closer to the table, as they pressed around the screen. In the *Encyclopedia* we searched for information on Transylvania, Bucharest, vampires, and Moldavians. In *Facts on File* we pulled up article after article on the recent political history of the country. The students were endlessly fascinated with summaries on the events of 1988 and 1989. We called up maps of eastern Europe and focused on Brasov and the surrounding area. Conversations turned louder as several Romanians pushed closer to the screen, explaining to their colleagues in translation from me a particular way of searching for facts, of pulling down a menu, of highlighting a portion of text.

Eventually the Romanians took over the stage, playing with the Portable and the screens. All I could do was look on and smile.

Over the past few years, I have taught workshops on computers for students who are in real life university vice-presidents, tenured faculty members, librarians, grammar and high school teachers, secretaries, undergraduates, and graduate students. In these classes I have fought boredom, computer "experts," jokers, and anarchists, in order to make computing exciting and interesting. But I have never had a class where I was so happy to see the students take over and run the show. Their enthusiasm and infectious geniality made me wish there was a way that I could bottle up these spirits and carry them home, to use on a rainy day when I am battling a class of gremlins and know-it-alls back here in the States. With this sort of attitude, the Romanians will use technology, not treating it as a sacred cow, but as a tool, like their once banned and registered typewriters, to recreate their libraries as catalysts for change in their country.

The Colocvii ended sadly on 12 August with farewells to all, and a hope that we and others would return to help this community of librarians grow and once again join their fellow professionals around the world. Romania is a country without a library school, a national professional library association, or the funds to purchase many basic and essential materials for their avid population of readers. In a country where books are prized—where we were proudly shown the first printing press and Romanian incunabula—it is unfortunate that the library profession suffered so greatly at the hands of politics and economics. It made me grateful for those tools and resources that I have at my fingertips, and, at the same time, made me look forward to my return to Romania. In the meantime, though, there are ways in which I can help my Romanian colleagues.

One simple but effective way is by joining my library with a like institution in Romania. This sort of library twinning has recently been proposed by IFLA's Professional Board as a way for individuals and their libraries to help colleagues around the world[2]. I see it as a means to recycle information—books, periodicals, equipment, expertise. In Romania there is literally no money to purchase books and periodicals, especially scientific and technical literature, which often ranks as the most expensive. One librarian moaned over her inability to pay 150 lei for a book, the equivalent of less than a dollar. So naturally, books and periodicals are an obvious choice. But there is also equipment. I often found card catalogs in Romania filled with hand-written entries, because typewriters were scarce. Under Ceausescu, typewriters were considered weapons—each and every typewriter had to be registered with the State. The sorts of typewriters that we might call fossils, replaced by laser printers and computers, would be prized in Romanian libraries. And finally, there is personal contact with fellow librarians, filled with questions on how we manage our own operations. In return we may be able to track down an obscure reference to an Eastern European periodical; locate a provincial newspaper; or discover a long-neglected author. But the real benefit will be in helping an information-hungry society

bring libraries and their staff back into focus, in providing to their patrons the tools they need to reconstruct their country for the next century. We all might be able to say that we helped lay a cornerstone or two in the process.[3]

Notes

1. "The hunger for information in Romania is perhaps best illustrated by a scene that took place in January 1990: When the first Red Cross trucks reached a devastated, post-revolutionary Bucharest, people asked why no books were among the humanitarian supplies. For information-starved Romania, books were as important as food, medicine, or blankets." From: Popa, Opritsa D.; Lamprecht, Sandra J. Western campaigns to provide scholarly materials to East Europe require care and quality control. *Chronicle of Higher Education.* 37(42): B1; 1991 July 3.

2. John, Nancy. IFLA projects on twinning of libraries. *IFLA Journal.* 17(3): 315-325.

3. Portions of this article will appear in the *Newsletter* of the Apple Library Users Group.

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MOSCOW: BEFORE, DURING, AND AFTER THE COUP D'ETAT

BY WILDA B. NEWMAN

The International Federation of Library Associations and Institutions (IFLA) was meeting in the Soviet Union for its 57th Council and General Conference, August 19-24, 1991. All of us had read the newspapers and heard daily reports on television and radio about the changes occurring in the USSR. Some colleagues decided to forego this year's meeting, due to the uncertainty there. Others, like myself, were not easily dissuaded, and besides, the librarians and information specialists there had worked so hard to host this event, it seemed discourteous, at the very least, not to show up.

So, show up we did, although the numbers were half the normal attendance. About 150 delegates, compared to 300 in recent years from the United States, and 1500 total attendees from all over the world, compared to 3000 in Stockholm in 1990 and 3500 in Paris in 1989. Not so for the USSR. They set a record in the number of participants attending (over 500) and making presentations at the week-long conference.

Confer we did, throughout the coup d'etat, and the week of meetings and social events, for the most part, took place as planned, at the Congress Center. (Photo 1) Banners hung high at the Opening Plenary Session at the Rossiya Hotel proclaiming IFLA, Moscow 1991. As has been reported by some of my colleagues (in *Specialist, Sci-Tech News,* and *American Libraries*) the week was a week to remember, with unexpected problems, changes, and workarounds all accepted as part of the drama unfolding around us, and swiftly absorbing us into this historical event.

Some things didn't change, even with a coup d'etat, like over-boiled chicken, served with their natural, live, skintones, and pinfeathers. But, the stock from that process made for some delightful bowls of borscht and cabbage soups, along with hearty bread and butter. But, let me start at the beginning.

One of the first things that strikes you on arrival is a lack of artificial light. We noticed this at the airport. Our welcome to the Soviet Union was to an unimaginative, cold-surfaced, scarcely-lighted room. The light that was there came through canister-like shapes overhead. We had an unusually long time to observe this, since some 36 of the people on the flight, including many of our delegation to the conference, were missing their baggage.

Throughout the two weeks in the Soviet Union, whether in Moscow, Kiev, or Leningrad, lights were either non-existent or very sparse in hotel lobbies,

rooms, shops, and most other buildings, as well as on most streets. In fact, we noted a curious practice of strands of lightbulbs draped from one lightpost to the next, on main thoroughfares in the cities, that were never lighted. The one big exception to a lack of artificial light was at the Kremlin Palace of Congresses reception held Wednesday evening, as scheduled by the IFLA program. By then, the coup was over and the celebration was one of music, dancing, and toasts, with lots of food, talk, and jubilation. (Photo 2)

Lines didn't change either; we adapted to the local practices. Our first experience with this was also at the airport. (I think this is the training ground for tourists, a sort of acclimation "rite of passage.") We waited forever and finally determined that the luggage was not going to arrive and that it was nowhere to be found. At least it was nowhere anyone could or would identify to us. The next step was Customs.

Some of us had our luggage and needed a cart. Young Soviet men were renting carts for two rubles. We had no rubles! You cannot exchange dollars for rubles outside the Soviet Union. And, you can't exchange dollars for rubles until you go through Customs, and you really do need a cart to carry the luggage to get you to Customs, then you can exchange dollars for rubles and get a cart and so forth. You get the idea. I explained this, but to no avail. The refrain was "two rubles!" Two rubles! Later I returned; again I explained. The young man pushed the cart toward me and said, "Here, for you, a gift." I thanked him and gave him a pack of cigarettes and received a smile in return. So this is how it is in the USSR.

We piled our baggage high on the cart, and marched off toward another line, this time for Customs. We waited again forever, it seemed. My colleagues finally convinced me to leave the line we were in and move to another that seemed to be moving more quickly. We did. And, waited. To our surprise, the Customs clerk announced as we were second in line, "no more work today, that is all." And, he left. He left a befuddled line of tourists aghast but thinking that a replacement clerk would surely arrive to take his place. That was not to be the case, however, and we carted ourselves back to the line we had left earlier, and from the back waited again. We were never able to figure out why the lines were taking so much time. The clerks simply took the time they pleased, not even checking most people as they passed them (finally) through to the outside world. None of us were checked. They asked one or two questions or said nothing at all, just giving a nod of the head for someone to move through.

We were a party of six from the United States, traveling together for two weeks—first the conference itself, followed by a post conference tour to Kiev, Leningrad, and Prague. (Photo 3) The rest of our party had cleared Customs earlier than we did (no explanation attempted on this since such variations in all things continued to occur throughout our trip). They were about an hour in front of us. My roommate and I departed for the Cosmos Hotel, our home for the week in Moscow.

When we arrived at the hotel, the rest of our party was still waiting at the desk for room arrangements to be communicated to them. As we approached,

they informed the clerks that we were with them and needed to be handled immediately, as part of the party. It worked! It had taken them an hour, and only five minutes for us, thanks to their quick thinking and our fast move into position (a talent we had a lot of practice developing during the next two weeks). It appeared to us that the "service people," almost anywhere we went, were more willing to handle groups than individuals, so we moved around a lot of the time as a group, even when it wasn't required.

We settled in and began to acquaint ourselves with the country, more of its customs, and the people. Sunday was a day of exploring and greeting to our specified locations for meetings, social events, and meeting colleagues and renewing friendships made at earlier IFLA conferences. This suddenly changed with the coup, from the standpoint that additional activities were superimposed on the usual conference activities. We tried to go about our business as usual, as the United States Embassy in Moscow had advised us to do.

Since I was sure that the people back home must be worried, I tried telephoning every chance I could. First, there was the wait in line for one of the international pay telephones. There were five of these in the Cosmos Hotel, serving as many as 1500 foreign travelers. Another few could be found in the Congress Center, site of the conference. You couldn't assume that the telephone you found available was working however, as often they were not. Call after call produced busy international lines. At times the call would make it further through but without final connection. Finally, I got through to my son who in turn contacted my boss. All that managed, the real surprise came when I returned home and saw the telephone bill. Two telephone calls and five "almost through telephone calls" cost almost four hundred dollars. The rate was based on a two to one exchange rate for rubles to dollars. We were legally receiving 32 rubles to the dollar all over the Soviet Union, with the exception of the Metropole Hotel, which had a rate similar to the telephone services.

The clerks at the hotel were also the same before, during, and after the coup. I frequently checked to see if I had received any messages—a telex or TWX or a telephone call, feeling very sure that my employer, the Johns Hopkins University, would be trying to contact me. We learned quickly, too, that whatever question we asked should be re-asked of another person. The answer was almost always different. One answer that was the same, however, was the response to, "Any messages for me?" I was presented with a wooden box about two feet deep and three feet wide. It had compartments that ran lengthwise, with raised levels from front to back, like vertical file holders for pamphlets or brochures. It contained ALL the messages (not very many, considering the hotel could accommodate 1500 people) and I simply searched through everyone else's messages to find my own. I found nothing.

When I returned home, I discovered that JHU/APL had spent a great deal of effort trying to reach me. I was wanted back in the United States. They thought that they had managed to get a telex to me, since it was supposedly received at the Cosmos Hotel. I never found the message, however, even though I had

been searching daily through the portable files at the front desk. Even when I checked the files several more times, on my return to the Cosmos Hotel, after the post-conference tour, I found nothing.

Similarly, public file boxes were kept of passports. Passports were collected when we checked into the hotel. I left my passport there and came back the next day to retrieve it from another area at the hotel desk. On requesting my passport, the clerk put a box in front of me. I searched through all of them to find my own. Some papers were mis-filed in mine. I called this to the clerk's attention, after I found my papers in another passport. All of this was done with essentially no surveillance of what I was doing. I still don't know for what purpose passports are taken.

One of the most memorable events occurred on Tuesday evening during a walk to the Metropole Hotel for dinner, after the short-lived reception held at the Pushkin Museum. A number of us were making our way through the area and stopped to talk with the young Soviet soldiers, with their tanks surrounding Red Square. I was struck by how young they were and how friendly. I felt no threat from these young people, and in fact I had the impression that they were not at all glad to be there. They talked, posed for pictures, and I gave those that spoke with us cigarettes and American flag pins, that I had brought with me. The gifts were accepted with thanks and appreciation. It made me wonder how this strange combination of events could be taking place, tanks and guns and Americans distributing gifts. (Photo 4)

At dinner that evening a colleague, Natasha Kutovenko, Assistant Director in International Affairs, Library, Academy of Sciences of the USSR, Leningrad, explained that ". . . this coup is a badly staged play, with poor actors, and no director, and it can not last long, not longer than two weeks at most." She also said, ". . . they have guns but no bullets . . . it cannot last." We wanted to believe her, but this was Tuesday evening and shortly after these comments our waiter came to the table to advise us that there was a curfew at 11:00 p.m. I was stranded, for it was already past 10:30 p.m., and I was at least a half hour from my hotel, and that was assuming I could get there without any delays or roadblocks, or that I would get there at all. I spent the night at the Metropole Hotel with a colleague, resuming conference activities the next morning. I am an elected member to the Standing Committee on Information Technology, and this day I was to moderate a panel, sponsored by this group, on retrospective conversion, at the National Library of Science and Technology of the USSR.

On Thursday evening, after the day's conference activities, we attended a grand reception at the Lenin Library. Again we were treated to lots of entertainment, food, and wine. Much of the entertainment theme was in preparation for next year's IFLA conference, scheduled for New Dehli, India. Kalpana Dasgupta, National Library of Calcutta, India, explained that the dancers were quite good, especially since none of the dancers was native to India.

Several of us left the library reception with flowers and proceeded to the downtown area where the deaths had occurred. We wanted to pay tribute to the loss of life in the name of freedom. We

placed the flowers on the sites of the three men killed on the night of August 20. (Photo 5) You could not walk through this area and not be tremendously moved. It was like being in a church. Voices were hushed, except for the occasional loud lament from the scene of the vigil kept by friends of the three victims.

The next day several IFLA delegates traveled by bus 70 kilometers north of Moscow to see the Trinity-St. Sergiy Lavra in Zagorsk. The monastery was founded in the 14th Century and is considered a national treasure of the Soviet Union.

I entered a church on the grounds, with other delegates, to the most melodic sounds I had ever heard. I was reminded of my son's first visit to Sainte-Chapelle in Paris. He heard the beautiful sounds of a boy's choir as he entered. To his great disappointment, he discovered a tape player with a cassette, instead of live singers.

In this case, to our right there were a few worshipers gathered, maybe 10, mostly women, singing without musical accompaniment. Their clothing was simple and drab and had a very worn appearance. All of them, the women with covered heads, had their faces turned toward the Iconostasis, where a priest offered his blessing to people that filed through. The Russian Church does not have benches or chairs, so you are required to stand for entire services. A few old, single-seat pews were available in the back of this area, where a pregnant woman sat, along with several babushkas.

Whether before, during, or after the coup, we were continuously struck by the number of churches, many of them active now, and the contrast between these buildings and others, especially since religion was not recognized in the USSR. These are undoubtedly the best restored, maintained, and most beautiful structures throughout the Soviet Union.

We continued our tour after the conference with IFLA delegates from several other countries. It was a time to enjoy more of the country and to get to know each other better. We observed additional protests in Kiev and in Leningrad (now St. Petersburg). The people in these cities were interested in democracy but uncertain of their future and the problems confronting all of the Soviet Union.

Colleague, Natasha Kutovenko, met our post-conference tour group at the airport in Leningrad (St. Petersburg) and boarded the bus with us. She gave a running historical account of the city along the route to our hotel. Natasha invited me to visit a family in Leningrad (St. Petersburg) one evening, including a friend of hers. He was the equivalent of an American CEO of a meat/sausage packing firm and was celebrating his 50th birthday. I was introduced and greeted by a dozen or so gathering of family and friends in a small, simply furnished apartment, then seated at a long table that took most of the living room. A large slice of bread lathered with black caviar had been prepared for me. Soon we were toasting the host and his birthday, and I was taught how to drink vodka, Russian style, and sampling Russian foods and participating in lively discussions. The evening was memorable and the people were some of the most warm and open I have ever met anywhere.

Another highlight for many of us was the visit to the State Public Library in Leningrad and the tour conducted by a

spirited little woman, with a perfect American accent, Fanny Barnofsky. We were never able to get her to tell us much about how she came to have that accent, which left us free for speculation. She did, however, tell us how she had been a part of the defense of the library's treasures and its protection from the German Nazis during World War II and the siege of Leningrad (St. Petersburg).

At the end of our tour we returned to Moscow and found remnants of the barricade in front of the White House still there two weeks later. (Photo 6) The women were still working at numerous tasks that seemed curious to us. (Photo 7) Wedding celebrations, Soviet style, were still part of the normal weekend scene.

Our group of six took a last look at the city, changed so dramatically, and in such a short period of time. And, our return trip to the city provided us with the memory of one of the best meals we had during the entire trip. Aragvy, a Georgian Restaurant, said to be Stalin's favorite, offered what turned out to be a banquet. The cost, including wine and champagne, was under ten dollars per person. The walnut chicken will long be remembered by those of us that made a pig of ourselves on that dish alone.

There were mixups in food, appointments with the Intourist guides, changes in sightseeing—for which we paid extra, overcharges and undercharges, as we bought from government stores and the man and woman on the street, and so forth. None of it mattered. The idea that we were there, experienced the changes in the Soviet Union, made new friends and exchanged our views on all sorts of subjects, survived the coup d'etat, and arrived safely home, made the trip all the more meaningful. As Americans we learned a lot of lessons as well, for example, not to take freedom and democracy for granted, and perhaps equally important the REAL value of information, after not having it when we wanted and needed it so badly.

The symbol of the IFLA conference in Moscow was the statue of Ivan Fyodorov. (Photo 8) He was the first Russian printer, and considered to be as important to that part of the world as Guggenheim was to Western Europe. This statue remained in place, no paint splatters, no graffiti, not broken. Perhaps that says it best. In the end, perhaps that is all that needs to be said.

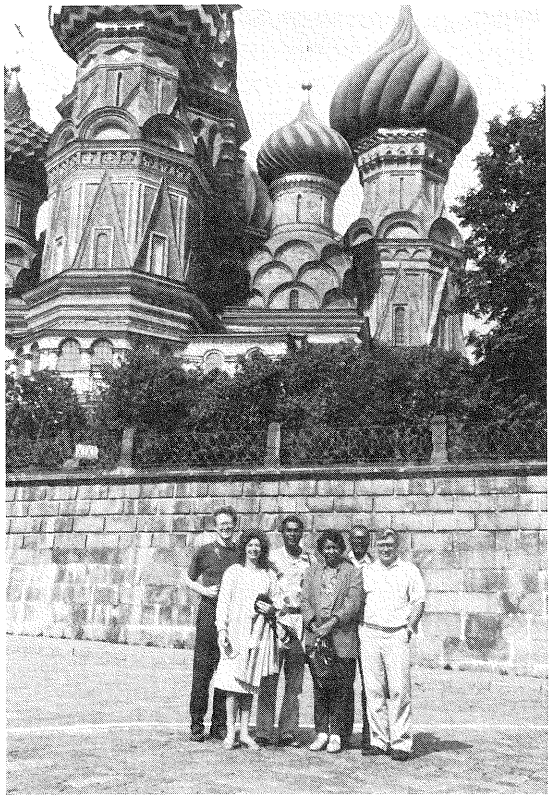
Wilda Newman is Information Resources Manager, Johns Hopkins University, Applied Physics Laboratory, Laurel, MD 20723-6099

(Allow two pages for photos)

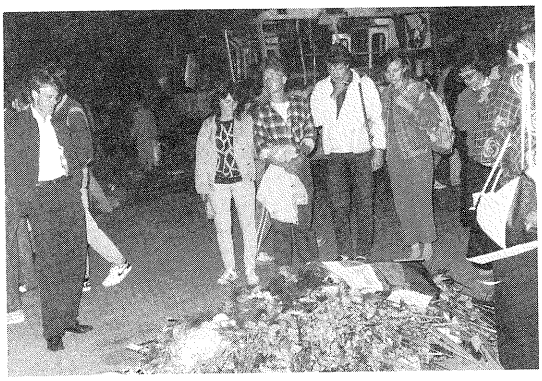
IFLA 1991, Congress Center, Moscow, USSR.

Young soldiers and their tanks surrounding Red Square with Wilda Newman, August 20, 1991.

Reception, Kremlin Palace of Congresses, End of the Coup d'etat, August 21, 1991.



Party of six in back of St. Basil's Cathedral. (left to right) Leonard Kniffel, Managing Editor, *American Libraries*; Wilda Newman, Johns Hopkins Univ., Applied Physics Laboratory; Carlon Walker, Esq., Ameritech; Betty Owsley, Indianapolis Public Schools; John Page, Deputy Director, Learning Resources Division, Univ. of The District of Columbia; Joe Boisse, Librarian, Univ. of Calif., Santa Barbara.



Floral tribute to the three young protestors killed at the median strip. Chaikovsky Street underpass, August 20, 1991. IFLA delegate Jan Ahman, Goteborgs Universitelsbibliotek, Sweden, far left.

Remnants of the "White House" barricade, August 30, 1991.

Russian woman repairing the lines of a streetcar in downtown Moscow, next to wedding cars.

Status of Ivan Fyodorov, first Russian printer and symbol of the 56th IFLA Conference, Moscow, 1991.

AEROSPACE DIVISION

The objectives of the Aerospace Division are to encourage the free exchange of ideas and information between libraries and librarians who are directly concerned with aerospace technology and related sciences; and to maintain a dialog with NASA and other governmental agencies upon whom we rely as sources of technical data and bibliographic sources.

FROM THE CHAIR

SANDY MOLTZ

CONFERENCE PLANS

Greetings! I want to motivate you to attend the Annual Conference in San Francisco. The theme of the June 1992 conference is "Gateway to Competitive Advantage." I realize that it is difficult to get approval for travel. However, for many of us this is the only opportunity each year for professional development which directly benefits our workplace.

The programs we are sponsoring are all ones you should find applicable to your job. We will also schedule time for you to converse and compare notes with your peers. Plus, don't forget to visit the exhibit halls—one of the most vital elements of the conference experience.

The four programs are:

1) **Monday, June 8, 1992**; 10:30 a.m. to noon—*Technical Reports Cataloging.* Presentations from the experts in the field on COSATI standards and procedures for technical report cataloging.

2) **Monday, June 8, 1992**; 3 p.m. to 4:30 p.m.—*Materials Information Online.* Presentations by Geoff Worton, AIAA; Michael Yuen, DIALOG; and Bill Weida, STN International, on new developments in locating materials information online. This program is made possible by the generosity of AIAA, DIALOG, and STN International.

3) **Tuesday, June 9, 1992**; 11:30 a.m. to 1 p.m.—*How to Get It.* The heads of the major government sources for reports will discuss ways to obtain hard to find documents.

4) **Wednesday, June 10, 1992**; 11:30 a.m. to 1 p.m.—*Workforce 2000.* Marilyn Loden, author of *Workforce America!* will speak on the challenges and opportunities that the changing workforce will mean for library managers, staff, and patrons. This program is made possible by the generosity of Business One Irwin.

To have opportunities for networking with your colleagues, we have scheduled:

1) **Sunday, June 7, 1992**; 3 p.m. to 4:30 p.m.—*Executive Board Meeting.* For all current/incoming officers and committee chairs.

2) **Monday, June 8, 1992**; noon to 1:30 p.m.—*Annual Business Meeting and Luncheon.* A ticketed event.

3) **Monday, June 8, 1992**; 8 p.m. to 11 p.m.—*Reception.* Co-sponsored by Engineering, Metals & Materials and Sci-Tech Divisions.
4) **Tuesday, June 9, 1992**; 8 p.m. to 11 p.m.—*Reception.* With an international flavor in honor of International Special Librarians' Day. Co-sponsored by Engineering, Nuclear and Transportation Divisions.

And, if that weren't enough, the all-important vendor exhibits are not to be missed for contact with current vendors and to see new products. The Board of Directors of SLA passed a recommendation encouraging each division to schedule time for attendees to visit the exhibits during the annual conference. Without the support of the vendors, we would not be able to produce the excellent programs we present, or have the open houses and receptions allowing us to meet each other. We must in turn support the vendors. Keeping up with the new products and services vendors offer is as much a part of continuing education as the conference workshops and programs.

Besides the programs mentioned above, there are many other worthwhile presentations planned, including five sessions on the Pacific Rim to be presented on Tuesday of the conference under the title *Global Connections Link Information Professionals,* and strategy sharing sessions on topics such as value-added information, and public relations and the library's image.

Hope to see you *all* in June!

Sandy Moltz

NOMINATIONS

Nominations are needed for the 1992 election as follows:

Nominees for Chair-Elect

Requirements: Attend 1993-1994 Winter Meetings and Annual Conferences. Assist with planning for 1994 SLA Conference.

Nominees for Secretary

Requirements: Attend 1993 Annual Conference

Please send your suggested names to:

Susan Douglass
Martin Marietta Astronautics
P.O. Box 179, DC1130
Denver, CO 80201

FUND-AMENTAL FACT

Now that the *Criss-Cross Directory* is out of print, we need ideas on ways to replace our principal fund raising activity.

One short term solution is for everyone to talk to their vendors about financial support for our annual conference programs. Anyone with the names of contacts they've made or of vendors interested in supporting us should forward those to the Treasurer, Sandy Spurlock, at (505) 828-5378.

Long-term solutions are going to be more difficult to develop. One about which there have been talks is a merger between us and the Metals & Materials Division. (See article "Proposed Merger" in this issue.) But while this is a way to combine resources, it is not a replacement for fundraising. We need new projects to raise funds; such as a continuing education course we might present at annual conferences, or other publications we could publish and sell.

Let's start thinking of creative solutions to this ongoing problem.

PROPOSED MERGER

A merger of our division with the Metals & Materials Division has been proposed by the two current Chairs of these divisions: Diane Brown, Metals & Materials, and Sandy Moltz, Aerospace.

Some of the pluses of the merger would be:

+ new ideas and concerns to add to our current focuses

+ larger membership to draw on for officers, committee members and program presenters

+ more financial resources for program planning and projects

+ both subject areas are a good mix

+ neither division has such a large membership that it would overwhelm the other

With libraries closing, less support for travel and participation in SLA, and other economic realities, a merger would allow us to continue presenting excellent programs, providing networking opportunities, and finding members to fill all the offices of the division. This is a way that we can meet the needs of all members despite the rising costs of conference during tough economic times.

Please call Sandy, at (617) 594-5363, to comment, or write:

General Electric Company
Tech Info Center 24001
1000 Western Ave.
Lynn, MA 01910
ATTN: S. Moltz

1992 'SPACIAL'

This being International Space Year, everyone is being encouraged to recognize space and the new global outlook it has wrought. That is the invitation anyway of Harvey Meyerson, president of the International Space Year Association. In a letter to SLA Executive Director David Bender, Meyerson offers his organization's assistance in organizing and publicizing any activities planned to highlight ISY, a celebration endorsed by the White House, Congress, and the space agencies of 24 countries (including the U.S.).

To quote Meyerson, "ISY celebrates the fact that space isn't only a place—it's also an age," an age characterized by the world growing closer together, with new perspectives about its global environment and its place in the cosmos.

For information on ISY and what others are doing, and when, write:

US International Space Year Assoc.
600 Maryland Avenue SW
Suite 600
Washington, D.C. 20024

or call:

(202) 863-1734

NASA TO PUBLISH THESAURI

The NASA Center for Aerospace Information is working on two mini-thesauri—one on bioastronautics and one on early aviation. Input regarding either or both of these is welcomed. Contact Ronald L. Buchan, lexicographer, at (301) 621-0103.

AERO SMITHS (and Jones and Does and. . .)

Irene Shaland, a librarian with the NASA Lewis Research Center in Cleveland, OH, has written a book, published in 1991. Titled *American theater and drama research: an annotated guide to*

information sources, 1945-1990, the book provides drama and theater enthusiasts with 532 entries on important general and specialized sources of reference and bibliographical information on American theater and drama since World War II. Shaland, a freelance drama critic, annotates each entry. (McFarland & Co., 176 pp., 91-52741, $29.95, 0-89950-626-7)

Jean Mayhew, Library and Information Service manager for the United Technologies Research Center in East Hartford, CT, is one of five individuals recently confirmed to the NTIS Advisory Board. The board held meetings throughout 1991 and discussed a variety of issues, including the functions, products and services of NTIS; the role of NTIS in the dissemination of government information; the responsiveness of NTIS; and the place of NTIS among government information agencies. Minutes of those meetings are available by contacting Robert R. Freeman, Office of the Director, NTIS, Springfield, VA 22161.

Leigh Watson Healey was promoted to vice president recently by The Faxon Company. Formerly manager of the Federal Reserve Bank of Atlanta library and a regional college library faculty person, Healey has been with Faxon since 1984 when she joined the company as sales manager in the Federal Division. She now develops strategy and directs client services, sales and marketing activities for U.S. business clients.

The following eight SLA members have joined the Division:

Catherine J. Bajis
Rockville, MD

Joan M. Clemens
Centerport, NY

Gary Eastham
Data Resources Group
Irvine, CA

Mary E. Foscue
Applied Research , Inc.
Huntsville, AL

Jennifer A. Garland
NASA
Washington, D.C.

Robin E. Petrus
CAE Link Corporation
Binghamton, NY

George J. Roncaglia
Poquoson, VA

Laurie K. Skirkanich
RMS Associates, Maryland

Welcome one and all to the Division.

Lynn Ecklund of Seek Information was featured recently, with Myra Grenier, in an article in the *Glendale (CA) News-Press.* The story detailed some of the experiences of the two infopreneurs and mentioned that the company had been in business since 1976. It also caught the eye of readers with this headline, "Firm turns profit with font of facts."

STRAIGHT AERO
By Don Welch

Ugh, I couldn't provide the service I do without a telephone, but sometimes I wish I didn't have one.

Besides the fact that they can interrupt us or give solicitors access to us when we are tired of hearing pitches, the telephone can be a difficult way to communicate. In certain situations, they are a necessary but a thoroughly frustrating modern convenience.

I'm talking here about placing an order over the telephone. The convenience of this is exhilarating, though. No letters to write, no POs to assign, no signatures to affix. Just say the word and the document yours.

. . . Unless you can't get the patient person on the other end of the line to understand what the specification number, report, or call number is. I guess I make six to eight calls a day when I'm trying to locate or order something, and I have to give very specific information to people who sometimes have problems with my pronunciation. (And, it's not because I have an accent or anything. All the people in Texas with whom I grew up never said anything about me having an accent.)

This lack of communication is frustrating. Periodically, I have resorted to a phonic alphabet I was taught graciously in the Navy. It worked great then but it doesn't seem to work now. "George, Echo, Echo," I have said, trying to spell the last name of an author, GEE. "George who?" I was asked.

I still think the idea is a good one, but maybe the phonics are not. Since I'm dealing now with telemarketers and librarians, maybe I need a phonic alphabet that employs words with which they are familiar. So, instead of "foxtrot" for F, maybe "fiction" instead?

Do you like the idea? I did, so much so, in fact, that I put one together. And, here it is, with an explanation or two.

For A, I went with "Author," though I leaned heavily toward "Abstract"
For B, I favored "Book," which edged "Barcode" and "Bind"
For C, I chose "Catalog," obviously
For D, there was "Discard," distinctive from "Due," "Desk," and "Disk"
"Extract" is now the E-word, though "Edition" was hard to ignore.
F became "Fiction," because "File" was demeaning and "Fee" provoking
G is now "Gift," not "Guide" or "Gazette"
And, H became "Heading" instead of "Hyphen" or "Hardware"
"Index" was the choice for I, with "Insert" and "Invoice" clearing losing
For J, I selected "Jobber"; a hard choice over "Journal" and "Jacket"
K was to be "Kit," easy to hear over "Keyboard"
"Loan" seemed appropriate next, unlike "Lease" and "Legend"
And "MARC" was the choice for M, far ahead of "Map" and "Modem" (Not to mention "Media")
N was going to be "Name," more original than "Non-Fiction" and better than "Noise"
O became "Overdue," very little competition there
And P was a princely "Patron," not a "Pocket" bare

"Query" felt right for Q, no problem with "Quotes" there
R was a difficult one, but "RAM" was the choice. "Reprint," "Rack," and "Realia" just didn't have the voice.
For S there will be "Spine," phonetically clear to "Stack" and "Space"
While "Title" was the winner against "Tab," Tray," and "Trace"
U scored a victory with "Use" edging "Update" and "U-til-i-ty"
V will be "Vendor," not "Video" or "Visitor"
"Weed" seemed appropriate versus "Word," "Write," and "Work"
But "X-ray" was the only entry in lean race at X ("Xenocentric" came to mind, but who could say it and not hear "Gesundheit"?)
Y? Y will be "Youth," a choice with vision
Z will have to be "Zone" because "ZIP" sounded too much like "Kit"

TRW'S CURRENT AWARENESS EFFORTS
By William R. Gammon

(The following is repeated almost exactly as it appeared in *DTIC Digest* in October 1991, with the permission of the author.)

Long term users of DTIC remember the old *Technical Abstracts Bulletin (TAB),* a classified index to newly-accessioned technical reports. Since this useful publication was distributed only to classified users, it was superseded by the unclassified *Technical Reports Awareness Circular (TRAC). TRAC,* however, did not include a subject index, and this was a failing in the eyes of some. The index was eliminated because it would have included a list of classified subjects.

Following the discontinuance of *TRAC,* though, DTIC users were left with using online services and *Current Awareness Bibliographies (CABs). CABs,* geared to each individual's specific needs, are highly praised—for as far as they go. However, information centers normally do not specialize in single topic areas—the purpose of *CABs.* The painful result for the TRW Technical Information Center was a steady decline in the use of the more than 2,000 DTIC Automatic Document Distribution (ADD) reports on microfiche entering our system monthly.

With declining technical report usage according to statistics and a corresponding increase in pressure to reduce budgets. our ADD program was in jeopardy of being canceled. Further, we realized the tremendous bargain that ADD provided its users. To develop such a program would increase eventual acquisition costs for years to come even if canceled for only a short period of time.

What was needed was a subject index to this material without the constraint of security classification—an index to our ADD microfiche that could be widely distributed among our customers. CABs came with such indices, but it was impractical to list every topic that anyone at TRW might possibly require. Eventually, we hit upon the idea of expanding and reproducing a CAB subject index geared not to subjects, but to field of interest. Because our ADD microfiche were distributed based on a composite of our many DD Forms 1540 (Registration for Scientific and Technical Information Services) and because TRW had nearly across-the-board coverage, the "fields"

approach was more suitable than the "subject" approach.

We began by attending DTIC's Annual Users Training Conference in Alexandria, VA. While there, we consulted CAB specialists to learn of its possibilities. Assured that such a large CAB was feasible, we needed only a few phone calls and a written CAB request to get things started.

With the receipt of the first broad-scoped "new accessions" CAB search results, we were in business! Now, twice monthly, a company publication that is easily prepared is reprinted using the index portion of the search. The *Technical Information Circular,* or *TIC,* is mailed to those TRW engineers who have an interest in DoD literature. *TIC* meets the needs of those seeking current data and makes the increasingly large holdings of the Technical Information Center more readily accessible. The publication, being unclassified, may be viewed by any employee having a need for current DoD data.

We designed an attention-getting lavender cover for our *TIC,* too. Color was important, as we wanted to have our publication stand apart from the other publications, reprints and copied material received by the typical office. The lavender cover did the trick and we've had nothing but compliments. We have designed a number of additional technical report promotional announcements that help to fill its pages. Once the cover was designed, we found that compilation time for *TIC* was only a fraction of that previously spent on the in-house publication it replaced.

Since publishing our *Technical Information Circular,* we find employees sending the batches of orders using only the subject index as their source. Having all the unclassified/unlimiteditems available on demand to contractors, we can usually give same-day or next-day service by printing from the microfiche. An added benefit is that more people are discovering the Technical Information Center and its holdings each week. We look forward to a strong growth year in Technical Information Center use.

THE GOVERNMENT AND INFORMATION

Recently, the SLA, along with a number of other major library associations and educational, historical and archival organizations, announced its support of the GPO WINDO program. WINDO stands for GPO Wide Information Network for Data Online. This is a program that would establish a point of online public access in the GPO to a wide range of federal databases containing public information. Depository libraries would have free access to the databases and others could become subscribers. The bill establishing this program was referred to the Committee on House Administration in June 1991.

Senator Claiborne Pell, D-RI and chairman of the Joint Committee on the Library of Congress, has introduced a bill (S. 1416) authorizing the Library to provide fee-based library research and information products and services. And while the SLA has not formed a position on this because it is concerned over access to government information and whether or not a provision such as this precludes open access, it is not opposed to fee-based services as long as the fees

do not exceed the marginal costs of producing and disseminating information. Senator Pell's bill has yet to be introduced in the House. It was referred to the Committee on Rules and Administration in June 1991.

STILL TOPS IN THE FIELD, ADELAIDE BIDS US ADIEU

By Denise Bedford

Editor's Note: It was recently learned that Adelaide del Frate passed away on Dec. 24, 1991, after this article was edited and set in print.

(A few years back, I had the opportunity to work at a NASA library. During my tenure there I had the privilege of working with a professional who influenced me greatly—by example and through advisement. Everyone I've met in the aerospace library and the federal library worlds knows and has great respect for Adelaide del Frate, Though she recently announced her retirement, or maybe because she is retiring, I want to acknowledge all that she has done for the profession and specifically the aerospace library and information community.)

Adelaide del Frate has had a colorful career in the field of library operations. She joined the National Aeronautics and Space Administration Cambridge Research Center in 1965, where she served as the Head Librarian until 1969. When the center closed in 1969, she joined the Goddard Space Flight Center staff as Head of the Library Branch. She brought to Goddard a vision of the future and a dedication to accomplishment that few in the field recognized then. . . but many recognize now.

Addie was a leader in opposition to the A-76 Law. While many in the field stated opposition to the law, few supported their words with actions the way Addie did. As a result she was successful in protecting the Goddard Space Flight Center libraries in Greenbelt and Wallops.

And, while she opposed the practice of contracting for library services and support, she was a rare bird in the professional support and advancement she offered to librarians working in the contract environment. Addie treated contract librarians with whom she worked as partners and professionals, not adversaries. With Herb White, she was one of the early supporters of performance-based contracts in the federal library and information center environment. Performance-based contracts included mechanisms with incentives for quality performance and demonstrated initiative, thereby negating the necessity of awarding contracts to the lowest bidder.

She has been a leader in the Washington, DC, chapter of SLA and in national activities, as well. Addie's association activities also included ALA and its many divisions and ASIS. Through this spectrum of activities, and her keen intellect, she has distinguished herself as a speaker at national library conventions and other functions.

Addie also gave freely of her time supporting local libraries. She served many years as a board member for the Montgomery County Public Library's Chevy Chase branch, presenting and defending the budget before the Montgomery County Council. She also provided insight and direction in the selection and implementation of an automated system for the library.

For five years, Addie has been NASA's Administrative Librarian at

NASA Headquarters, coordinating the full implementation of the Aerospace Research Information Network. This complex task necessitated the acquisition and implementation of a turnkey system. Addie succeeded in acquiring and implementing NOTIS at a time when other federal libraries were only beginning to think of automated support.

As Administrative Librarian she also acted as gatekeeper to legislative information for libraries in general and for NASA libraries in particular. She also initiated a continuing education program for NASA federal and contract librarians, using video conferencing to keep professionals informed about current and prospective developments in the field. Topics in the program included expert systems, linked systems, authority file flips, copyright developments, output measures, and the NASA science network.

The first video conference was held in late 1988, and in addition to educating librarians, the conferences provided them a forum for discussing the implementation of ARIN modules, facilitating decision making in a consortium environment, and keeping them informed and involved in the NASA STI program. The results of this was a cohesive network of librarians, a goal obviously of a librarian at the top in charge. Lee Jarabek at NASA Lewis also said the video conferences helped librarians place voices and faces with names, essentially adding a human element to providing service.

Humane also describes the way Addie led her life. In addition to the products and services she developed, Addie also made people a focus of her talents. One way was to assist shut-in individuals in the area. Another way was the day-to-day interaction she had with librarians. She encouraged others, by example, to set high personal performance standards. Since she also wanted everyone to succeed, she offered her advice, ideas and encouragement freely.

Addie always was in control of herself and the situation, too. To illustrate, I remember when she was driving herself, Carolyn Floyd and me back to a hotel in Boston. We seemed to be lost, at least temporarily, and she was not troubled at all. To explain how she felt at the time, she shared some of father's wisdom with us. "What are you worried about?" her fathers asked one day when the family also seemed lost. "You're in America, and you speak English."

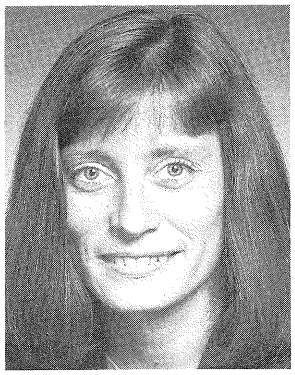
Well, NASA now must find a person to guide the libraries as Addie did. Those who have worked for her say that she will be hard to replace, primarily because of her importance to the aerospace information arena as an innovator. The time for Miss Addie driving, though, is over.

ENGINEERING DIVISION

The objectives of the Engineering Division are to provide an association for those having an interest in library and information science as they apply to engineering and the physical sciences and to promote the use of materials and knowledge for the benefit of libraries and other educational organizations.

FROM THE CHAIR

LYNN TINSLEY



CONFERENCE PLANNING

The SLA Winter Meeting will be held in Clearwater, Florida, on Jan. 29-31, 1992. The plans for San Francisco will firm up and become a printed preliminary list while the plans for Cincinnati germinate and take flight. It is a very exciting and challenging meeting for all planners. Mitzi Rinehart will be taking over the planning helm at this meeting. It is not too late to offer your ideas for conference programs to Mitzi. She can be reached at (602) 893-7162.

I had the opportunity to visit San Francisco for the first time in early November. What a fun and scenic city! I owe a special thank-you to Daniel Krummes, Chair, Transportation Division. Dan showed off his wonderful hometown and let me in on its secrets. The conference hotels are located in the downtown area and are within walking distance of major stores, great restaurants, and cable car routes. The city has many hotels to choose from, so be adventurous and plan ahead. I highly recommend a walk to Pier 39, a boat ride in the Bay, and for local color, breakfast at the Pier 1 Deli!

PUBLICATIONS

Speaking at the Online/CD ROM '91 conference in November was the reason I landed in San Francisco. In preparation for my talk titled "What's New in Sci-Tech Databases/CD ROMS," I developed a handout that I would like to share with each of you. (It's printed at the end of the Division's section.) The handout contains information on major online vendors' enhancements and newly loaded databases for the calendar year 1991. It also includes new CD ROM products that cater to Sci-Tech subject areas. I hope you will find it useful. 800 numbers are included for the CD ROM vendors.

In this issue I would also like to share with you an article written by a

colleague at the Carnegie Museum of Natural History Library, Elizabeth Swan-Kwater, titled "Mentorship: The Gentle Art of Coaching." This article is reprinted with permission from *The Pointer,* Bulletin of the SLA Pittsburgh Chapter. Enjoy!

MENTORSHIP: THE GENTLE ART OF COACHING
by Elizabeth Swan-Kwater

Introduction

The aim of the SLA/SLIS Mentor Program is to encourage the development of a relationship between a library school student and a librarian who is experienced, knowledgeable, and established in the profession. To be the most satisfactory and effective, the mentor/protege relationship should result in mutual benefits. The success of a formal mentorship depends primarily upon the two persons assigned to each other, as the relationship is both informal and personal.

Who can fulfill the role of a mentor? Experienced professionals who act as mentors have sufficient confidence in their knowledge of the vital non-technical skills necessary for many aspects of work in libraries.[1] Reciprocal support and encouragement of fellow professionals will result in the development of a mentor/protege relationship. It is equally important that librarians work actively to develop mentor/protege relationships with junior colleagues and support staff in their own department. In this way, we as librarians serve as role models and enable people at all levels of ability to develop their own potentials.

In a work situation, a mentor should be someone respected and admired by the potential protege, and someone who can act as a model for the protege's career. We all have many opportunities to share what we know, particularly when we have refined our talents through years of experience and growth. Mentors are interested in knowing that their advice has been acted upon, and whether the strategy was successful.

The protege's performance reflects the teaching and encouragement of the coach, and can thus enhance the mentor's sense of accomplishment.[1] We can provide additional coaching if a student intern is assigned to our department. Mentors can help prepare interns to be independent professionals by discussing alternative strategies and suggesting the best solution for the circumstances. Where appropriate, mentors can encourage interns to accept additional responsibilities and to take reasonable risks. This involves giving them sufficient authority to act, reasonable backing when they make mistakes, and encouragement to try again.[1]

Learning to Fail

Inability to make a decision may be based on a fear of making the wrong decision. Learning to cope with the fear of failure is very important.[1] A mentor can demonstrate by example that we need not be discouraged from new endeavors due to a fear of failure, despite an element of risk and uncertainty. Knowledge is often the power which dissolves fears, and people become successful with more experience as they use their talents in new ways.

Mentors can help solve work-related problems in areas in which proteges feel inhibited by their inexperience. Proteges should ask advice on specific problems, particularly those issues of concern about which they are the least secure. It is important that people learn to ask for advice and support; fear of failing or appearing ignorant keeps many people isolated. Asking for help is an essential precursor to be able and willing to help others.[1]

Teamwork

Able people working in reasonable harmony to accomplish a joint goal is one of the most difficult things to achieve in business.[1] This can be accomplished through teamwork, a skill which must be learned, especially in today's competitive corporations. Proteges should be encouraged to be self-reliant, but also taught how to work with others. Coaching can encourage a protege to experiment with new ways to exercise and develop their abilities. The political environment of the work place can be very difficult to penetrate, yet it dictates attitudes and behaviors. Mentors can help acclimatize new staff by explaining the way in which the organization functions. They can also stress development of non-technical competencies and establish ethical standards that support teamwork, such as honesty and integrity; emotional stability; dedication; vision and imagination; decisiveness and courage; and effectiveness with people.[1,2]

Conclusion

The people who stand out in every profession are those who use their knowledge and experience to shape their working environment on both small and large scales.[1] Teaching and sharing with others can result in the enrichment of an individual's professional life and the profession of librarianship as a whole. Leaders seek out opportunities to participate, to give of themselves and develop relationships with others, and they are successful because they are involved in an active and ongoing exchange with their world.[1]

Special librarians aim for the highest standards of librarianship where commitment, excellence and accountability are significant attributes.[3] Mentoring library school students provides us with an excellent opportunity to articulate the types of competencies required for practicing special librarianship. New professionals recruited into special librarianship will determine the strength of this branch of the profession. Each of us who mentors colleagues and students can actively contribute to the SLA President's incitement to empower ourselves and others and thus collaborate on the creation of special librarianship's future.[3]

Bibliography

1. Schmele, Adele M. *Skills for success: a guide to the top for men and women.* New York: Ballantine Books; 1977.
2. DiMathia, Susan B. Leadership can be learned. *Special Libraries.* 81(2):126-131; 1990 Spring.
3. St. Clair, Guy. Special librarians—preparing for tomorrow today. *Specialist.* 14(7):1-5; 1991 July.

REPORT FROM THE STUDENT COORDINATOR

Sara Davis

Each year the Engineering Division has the privilege of helping students attend the annual SLA Conference. Again this year, we will present stipends to two (2) MLS students for the 1992 SLA Conference in San Francisco. The funding will cover the cost of the Conference registration, Engineering Division breakfast and the SLA fund raiser. These students must be first-time SLA Conference attendees and not funded by other SLA divisions.

Flyers will be sent to various student organizations, and details will be supplied to student group advisors. Interested students should send a copy of their resume and a short statement (no longer than two (2) double-spaced paragraphs) explaining how they would benefit professionally from attending SLA. Applications should be sent by March 16, 1992 to:

Sara Davis
Technical Information Services
Jacobs Engineering Group
PO Box 53495
Houston TX 77052.

If you know a student that might be interested in our program, please share this announcement with them.

ENGINEERING DIVISION NEW MEMBERS

August 1991 - November 1991

Leonard F. Black
1829 Van Hise Ave.
Madison WI 53705
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Colorado Springs CO 80907
(719) 598-0200

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(404) 894-4511

Ann G. Dutt-Milano
Skidmore Owings & Merrill Library
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(312) 641-5959

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Tucson AZ 85737
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512 Boylston Ave. E. #203
Seattle WA 98102

Bambi L. Wessel
Geragty & Miller Library
126 N. Jefferson St. #400
Milwaukee WI 53202
(414) 276-7742

WHAT'S NEW IN SCI-TECH DATABASES

Lynn Tinsley
Carnegie Mellon University

1991 ONLINE VENDORS
New/Added Databases and Enhancements

STN

New
MPD - Materials Property Network
ISIS - Intergrated Scientific Info System
CEBD - Civil Engineering Database
MSDS - Materials Safety Data Sheets
STNGUIDE - database summary sheets for all databases
STNExpress - user interface
Enhancements
AAASD - Aluminum standards & data
FSTA - reloaded, imp. patent searching

DATA-STAR

New
HSDB - Hazardous Substances Database
MIRA - Motor Industry Research Association
JPNW - Japan News Wire
Computer Database
TECC - CAD/CAM Abstracts
TERO - Robotics Abstracts
RAMB - Recent Advances in Manufacturing

DIALOG

New
DIALOG Journal Name Finder - 414
Toxline - 156
Trade Names Database - 116
Japan Technology - 582
Trademark Scan - UK - 126
APILIT, American Petroleum Institute - 353,953
APIPAT, American Petroleum Institute - 354,954
Dismount
Clinical Abstracts - 219
Enhancements
Computer Database/Computer ASAP - 275
APIBIZ (formerly P/E News) - 257,897
IHS International Standards and Specifications - DODISS Plus data added -92
TSCA Chemical Substances Inventory - EPA flags added - 52
Thomas New Industrial Products - full text, one search with Thomas Register - 536
CHCD, Chapman & Hall Chemical Database - formerly Heilbron -303
CLAIMS/Reference - now includes Index to the U.S. Patent Classification
Environline - expanded coverage - 40
Energy Science & Technology - formerly DOE Energy - 103,104
Medline
Math-Sci
Embase
Coffeeline - 164, now updated monthly

Chemical Business Newsbase - 319, now includes full-text of articles from European Chemical News
PTS Aerospace/Defense Markets & Technology - 80
TDS Numerica
New
Chemsafe: Chemical Safety Data
DDB; Dortmund Data Bank
ELDAR: Electrolyte Data Bank Regensburg
POLARPROPS
POLYMAT: Plastics Materials Database
Enhancements
Aquire
PPDS-2: Phy. Porp. Data Service
EQS: Chemical Equilibrium Software

ORBIT

New
DPIN - Drug Patents International
Beilstein
Supertech
World Ceramic Abstracts
World Research and Technology Centres
Enhancements
ENVI - Environline
SCIB - SciSearch backfile added

SCI-TECH CD ROMs
1991 PRODUCT RELEASES

CUADRA / ELSEVIER (212) 380-5520
Cuadra Directory of Databases on Disc

Bowker - (212) 645-9700
Data Access Plus
Custom Access Plus
Environline
Sci-Tech Ref. Plus
Supertech

Association for Computing Machinery (ACM) - (212) 869-7440
Computing Archives

Society of Automotive Engineers (SAE) - (412) 776-4841
Move: Mobility on Engineering Technology

SilverPlatter - (800) 343-0064
INIS - International Nuclear Information System
MEDLINE Express
BA/RRM on CD - draws reports, reviews, and meetings from Biological Abstracts
OSH-Rom CD Rom: now includes the MHIDAS; Major Hazardous Incident Data Service
COMLINE - Japanese technology
FSTA - Food Science and Technology
TROPAG & RURAL - Tropical Agri. and Rural development
Claims patents
Chembank
ICONDA - Int'l Construction
ToxLine
GeoRef
AIDSLINE
EINECS-Eur. Inven. & Existing Chem. Subs.
SEDBASE - Side Effects on Drugs

Compact Cambridge - (800) 227-3052
Aqualine
Selected Water Resource Abstracts
Waterlit
PolTox I - Pollution & Toxicology Database on CD
PolTox II - source material from Excerpta Medica
PolTox III - source material from CAB worldwide agric. info.

Drug Information Source -Option A: Complete Drug Info Source
Option B: Int'l Pharm. Abstracts
IPA - International Pharm. Abstracts

DIALOG - (800)-3-DIALOG
Ei EEDISC - subfile of Compendex Plus for electrical & computer engineers
Ei Energy & Envirnment - subfile of Compendex Plus
Trademark Scan - Federal
Trademark Scan - State
Ei Page One - now officially released
Dialog Bluesheets on CD ROM

Information Handling Service - (800) 241-7824
Vendor Master Directory
Worldwide Standards Service

GEOSYSTEMS (RR Donnelley) - (717) 393-8806
Voyager
Digital Maps
Geolocate
RoutePlan
Meridian Data
GRIPS2 - Government Raster Image Processing Software - over 250 images collected from U.S. Government agencies including oceanography, geology and meteorology.

Springer-Verlag - (800) 777-4643
Dangerous goods
Beilstein Current Facts in Chemisty
Protein Data Bank

BIBLIOGRAPHY

Nicholls, Paul T. *CD-ROM collection builder's toolkit: the complete handbook of tools for evaluating CD-ROMs.* Weston, CT: Pemberton Press; 1990.

Armstrong, C.J.; J.A. Large, eds. *CD-ROM information products: an evaluative guide and directory.* Brookfield, VT: Gower; 1990.

Duggan, Mary Kay, ed. *CD-ROM in the library: today and tomorrow.* Boston: G.K. Hall; 1990.

NUCLEAR SCIENCE DIVISION

The division has a special interest in Nuclear Science and in advanced energy systems such as nuclear, solar, wind, geothermal, and tidal. Its concern in these fields includes, but is not limited to, research, policy and analysis, development and production.

FROM THE CHAIR

CYNTHIA ORTIZ

GREETINGS

By the time you read this column, the holidays will have come and gone. I certainly hope each and every one of you and your families and friends had happy ones and that your new year is off to a fabulous beginning.

Diane Mirvis and I will be on our way to Clearwater, Florida, for 1992 and 1993 conference planning in late January 1992, as I wrote in the last column. This is just a reminder for those of you with ideas for Diane for the 1993 conference in Cincinnati that it is time for you to contact her with your ideas. I may have her write up some of her own ideas for you for the next issue of *Sci-Tech News.*

1992 CONFERENCE SCHEDULE

To help you with your planning for the 1992 conference in San Francisco, the following is our schedule of Division activities. We hope that you will support the Nuclear Science Division by attending as many of these functions as possible.

San Francisco is an exciting and elegant city to visit. We hope you will have time during the busy SLA conference to take in some of the sights of the city, too.

Monday, June 8: 7:30-9:00 a.m.—Dutch Treat Breakfast and Executive Board Meeting. Officers and others who need to attend will be informed of the location.

Monday, June 8: 12:00-1:30 p.m.—Annual Business Meeting and Luncheon. John Reid of SilverPlatterwill give a short presentation on their new CD-ROM INIS product.

Monday, June 8: 1:30-4:00 p.m.—Seismic Mapping. This session will be cosponsored by Geography & Map (the lead Division), Engineering, and Petroleum & Energy Resources. This is a crucial topic for those of us working in the nuclear industry.

Tuesday, June 9: 8:00 p.m.-12:00 a.m.—Open House. This is cosponsored by the Aerospace, Engineering, and Transportation Divisions. Since this is the special day devoted to Pacific Rim topics, we may have some oriental food served. This, though, is not set yet.

Wednesday, June 10: 1:00-2:30 p.m.—Strategic Planning. The cosponsors of this session are Business & Finance (the lead Division), Publishing, Social Science, and the SLA Strategic Planning Committee. We hope you can be at this dynamic meeting. The subject is very important in these days of trying to emphasize cost containment efforts and the value added by our services.

The Nuclear Science Division will have no separate tour on Thursday this year. So many of the other divisions are planning intriguing adventures to such places as Silicon Valley, the wine country, a railroad museum, among others that your Chair thought that you would like to have the opportunity to go on one of these tours instead. There will be so many of these tours to choose from, I trust a few of us will get to see each other on the one we select.

MERGER

At the 1991 conference in San Antonio, a few of your officers were approached by officers of the Public Utilities Division regarding starting to think about the possibility of merging our groups. The idea is at best tentative. What I am writing to you about is to request that you contact me either in writing or by telephone or fax to let me know what you feel about such a move. A decision is not close, but I wanted all of you to have the opportunity to voice your opinions on this matter. Your officers and I welcome your thoughts and advice to us. There are many pluses and minuses we can all recognize. So please let me hear from you. I value your ideas.

TAPES

Please remember the 1991 conference tapes that are available to borrow from Diane Mirvis's office at Brookhaven.

MEMBERSHIP NEWS

By Alice Hassett
Membership Chair

NUCLEAR SCIENCE DIVISION NEW MEMBERS

The Nuclear Science Division of SLA is pleased to add the following colleagues to our membership list:

Benjamin F. Bauer
SilverPlatter Information Inc.
Environmental Publishing Group
100 River Ridge Drive
Norwood, MA 02062

Ruth L. Elder
Baltimore Gas & Electric Co.
Calvert Cliffs Nuclear Power Plant
Training Resource Center 20TF
Lusby, MD 20657

Eun Joo Lee
ABB Combustion Engineering Inc.
Library
1000 Prospect Hill Road
Windsor, CT 06095

Haekyoung K. Lee
Nuclear Assurance Corp.
Information Center
6251 Crooked Creek Road
Norcross, GA 30092

We sent out copies of the Fall 1991 Membership Directory for the Nuclear Science Division. If there are corrections, please let me know, and we will include the information in the Spring 1992 issue.

We have found that Fax numbers facilitate the exchange of information, so if yours is lacking, we would appreciate being updated. Our final plea is that the overseas members furnish complete international country and city codes.

Note the membership form included as a centerfold in the Membership Directory. Please share this opportunity with others.

We look forward to seeing all of you at the SLA Annual Conference, June 6-11, 1992, in San Francisco.

FINANCIAL SUMMARY
By Juanna I. Shin, Treasurer

The annual financial statement for 1990 was presented to the Division members at the 1991 business luncheon in San Antonio. The closing balance on December 30, 1990, was $1,871.23. Since submitting our annual financial report to the Association, we have had an income of $1,273.71 and disbursements of $1,277.30. Our current balance at Connecticut National Bank as of November 12, 1991, is $1,867.64.

FROM YOUR BULLETIN REPORTER
By Mary O'Brien

Please let me know what you would like to read in your bulletin. Your ideas for columns or articles would be very welcome. Even more welcome would be your contributions. For example, you might write profiles of your libraries, you've attended, or articles on topics such reports on workshops or conferences as library management. Personality profiles, bibliographies, book reviews, product reviews, and letters to the editor would also be welcome. Please submit your ideas or articles to:

Mary C. O'Brien
Portland General Electric Co.
Trojan Nuclear Plant, TNB-2
71760 Columbia River Highway
Rainier, OR 97048
Phone: (503) 556-5673
Fax: (503) 556-5405

SCIENCE-TECHNOLOGY DIVISION

The objectives of the Science-Technology Division shall be: to draw together those members of the Special Libraries Association having an interest in the role of library and information science as applied to the recording, retrieval and dissemination of knowledge and information in all areas of science and technology; and to promote and improve the communication, dissemination and use of such knowledge for the benefit of libraries and their users.

FROM THE CHAIR

DOROTHY MCGARRY

CONFERENCE PLANS

Time is fast approaching for the Winter Meeting of SLA. Richard Hulser and I will be attending for Sci-Tech. The Winter Meeting provides an opportunity for chapter and division officers to attend SLA Board meetings and find out more about what is happening with the Association, and will give division planners an opportunity to finalize program plans for the San Francisco conference and start them for the Cincinnati conference.

At the 1992 San Francisco conference, we will have our traditional cosponsorships of the Standards Update, International Patents, and Computer Science meetings. We will participate in a joint reception with several other divisions, and have another reception also. The two major programs being planned with other divisions are "Going Worldwide: Global Sources of Information" and "Collection Development in Cross Disciplinary Environments in the Sciences." The tour on Thursday will be to some libraries in the Silicon Valley. Our business meeting will be Monday morning. Exact times and speakers will appear in the next issue, but please make your plans to attend—I think you'll find much of interest for you at the conference. Be sure to plan time to attend the exhibits also during your stay.

Two discussion groups dealing with science and technology librarianship will be held at the conference. One will be a general discussion and the other, co-sponsored with the Chemistry Division, will focus on academic libraries. These will provide opportunities for you to share problems and solutions, to speak up on whatever topic relating to sci-tech libraries you'd like, and get to know others better. Please plan to attend and participate, and let Richard Hulser know for next year if you would like him to plan on discussion groups for Cincinnati also.

You can send in comments, suggestions for topics, etc. to the leaders of the groups. Le Ann Weller, University of Kansas, will lead the general discussion group, and Marion Peters, UCLA, will lead the one geared more narrowly for academic libraries. Jim Leonard, IBM, will lead the computer science discussion, which will be cosponsored with the PAM Division. You can find their addresses in

the SLA directory. I know they would all be happy to hear from you.

MEMBERS HONORED

Congratulations to Sci-Tech members **Helene M. Gingras, Maria E. Michal,** and **Marguerite C. Soroka**. Each of them has maintained her membership in SLA for 45 or more consecutive years and qualify for complimentary membership from SLA. Their commitment to SLA and its activities, and to our division, is very impressive and welcome.

Elsewhere in this issue you will find information about the Sci-Tech Achievement Award and the Travel Stipend Award. Please send in nominations for the Achievement Award and/or applications for the stipend. The Division takes pleasure each year in honoring colleagues for their past activities and welcoming new people.

ELECTIONS

When you receive your ballots for the Sci-Tech election, please vote. Participation by our members is essential to having a healthy division.

AN INTERVIEW WITH DOROTHY McGARRY: SLA JOHN COTTON DANA AWARD RECIPIENT IN 1991

By Monica Ertel
Apple Computer, Inc.

We are very fortunate this year to have as our Sci-Tech chair an SLA member who has had twenty years of dedicated experience in our association. Dorothy McGarry has participated in a wide range of activities at the Chapter, Division, Association and international levels. She has served on many committees in the Southern California Chapter and has been involved in several Divisions such as chairing the Physics-Astronomy-Mathematics Division. Dorothy was not only the first chair of SLA's Committee on Cataloging but was instrumental in its establishment. In addition to her involvement in US library associations, Dorothy is also SLA's chief representative to IFLA on various matters concerning cataloging and recently participated in the IFLA program held in Moscow on retrospective conversion. The SLA John Cotton Dana award she received in 1991 recognizes exceptional service by members of the Association to special librarianship and Dorothy is truly a deserving recipient of this prestigious award. Dorothy's dedication to our association and her contributions to the profession of librarianship have made her a true inspiration to all of us.

Here is the record of an interview held with Dorothy recently:

Tell me about your current job?

I am Head of the Cataloging Division of the Physical Sciences and Technology Libraries at UCLA. I have been head of the Division since September 1976. Prior to that, I was a cataloger in the Division since November 1971. I received my MLS degree from the UCLA library school in June 1971.

How did you first get interested in librarianship?

I worked in a library while I was an undergraduate, and enjoyed the work. I became interested in cataloging at that time, and decided from the beginning that I wanted to be a cataloger.

What was your life before libraries?

I attended school for a long time (including two years graduate work in Anthropology), and worked very briefly a couple of times. Much of my time was taken up being a wife and mother for a number of years.

What's a typical day like for you?

I get into work early to clear up some work from this pile or that, supervise several people in my Division, answer questions, attend meetings, supervise other people's cataloging on a special

project outside the Division, do problem-solving, leave late.

What are your goals for yourself and for your library?

I have general goals, rather than specific ones. I want to continue to do the best job that I can to do my work well, to contribute to the library system here at UCLA, and to contribute to the library profession in general. My goals for my Library are to have the Cataloging Division serve the four libraries for which it catalogs as well as we possibly can, and to contribute to the library system as a whole.

What do you think are the main challenges for information professionals today?

Librarians must learn the new technologies that have been and are being developed and provide ever greater service to the users of the library. I think it very important, however, that they not forget the traditional services of good reference in person and good cataloging to make the collection available.

What is the accomplishment of which you are the most proud?

It's hard for me to sort out a "most proud of" accomplishment. Perhaps I can just list three recent ones: being presented with the SLA John Cotton Dana Award; being Chair of Sci-Tech; and being Chair of the IFLA Section on Classification and Indexing.

What professional activities are you looking forward to in the upcoming year?

One immediate event is the SLA meeting in San Francisco, for which I am doing program planning for Sci-Tech, and when I will serve as Division Chair. I am also looking forward to the IFLA meetings in the next few years in India and in Spain. These are the two that are perhaps the largest commitment. There are a number of other conferences I will be attending, e.g., as a member of the Library Committee of the American Mathematical Society, I will be attending the mathematics meetings in January 1992, and will have an opportunity to talk with faculty who use libraries which include subject matter in which we catalog.

Some of the most interesting experiences have been meeting people from other libraries and other countries, and discussing librarianship with them. I enjoy and am very interested in meeting people, learning from them, and sharing experiences and knowledge.

What do you do when you are not working in your library? What do you do for fun?

I suppose visiting museums and reading murder mysteries are the two things I do most at this time. A lot of my time is spent reading journals in librarianship or in science that I receive through my professional memberships.

What are some of your hopes, wishes, concerns for our profession?

One of my biggest concerns is that a number of library schools have dropped cataloging from their core program, since I believe that cataloging classes are not (just) for catalogers, but are also essential for people who want to do reference, bibliographic instruction, collection development.

I have a lot of hopes and wishes that librarianship continues to attract bright, dedicated people, who have a service concept, as do so many of the people I know now in the profession. I am concerned that traditional values, such as in-person reference and an awareness of the need for good cataloging do not get lost in the process of learning to use the new technologies that are developed.

ANNOUNCEMENT OF SCI-TECH TRAVEL STIPEND AWARD

For library school students and/or first-time conference attendees, the Sci-Tech Division of the Special Libraries Association is sponsoring a travel stipend of up to $600.00 toward payment of expenses incurred while attending the Association Annual Conference, San Francisco, June 6-11, 1992.

Qualifications:

1. Hold an individual membership in the Special Libraries Association;
2. Be attending your first SLA Annual Conference;
3. Write and submit an essay of 500 words or less addressing the theme of the 1992 Association Annual Conference or addressing a subject of interest to science and technology librarians.

Special Instructions:

1. Give your name, address, and a statement of your qualifications for the award on one page. On the same page, please note whether you are planning to apply for travel awards given by other divisions of SLA. Although no applicant will be disqualified if also applying for other awards, it is our intent to avoid duplication with other divisions.
2. In order to preserve anonymity, please type the essay (Qualification #3) on separate pages, double spaced.
3. There is no special application form to use in applying for the award.

Notes:

1. Neatness, spelling and grammar will count in judging. Essays exceeding the 500-word limit will be automatically disqualified.
2. The Sci-Tech Division Awards Committee reserves the right not to award a travel stipend.
3. If more than one award is earned by an applicant, the dollar amount given will be the sum of the awards and will not exceed a maximum of $600.00, in accordance with Division guidelines.

Deadline for Applications for the Award: March 1, 1992

Submit Entries for the Award to:
Cynthia K. Via, Awards Chair
Pioneer Hi-Bred International, Inc.
400 Locust
700 Capital Square
Des Moines, IA 50309

ANNOUNCEMENT OF SCI-TECH ACHIEVEMENT AWARD

The Sci-Tech Achievement Award is the highest award presented by the Division, and is reserved for those recipients whose professional work is

marked by distinction and dedication to scientific and technical librarianship. The purpose of the award is to recognize those Division members who have made outstanding contributions to the Division, and/or to the literature of science and technology librarianship. The $250.00 award will be presented annually, with an appropriate scroll describing the reason for the award. The Sci-Tech Division Awards Committee reserves the right to withhold the award if a sufficient number of appropriate candidates is not nominated.

Qualifications:

1. Be a member of the Special Libraries Association;
2. Be a member of the Sci-Tech Division for at least three years;
3. Not be a currently elected Sci-Tech Division officer;
4. Be working currently in a library, information center, library school or other information-related capacity.

Nominations:

Send a typed, signed statement to the Awards Committee Chair including information on the candidate's professional career, committee activities or offices held within the Division, special Division projects or services, publications, and any other related functions that qualify the person for the award. Please include the name, position, business address and telephone number of the nominee. Documentation, although not mandatory, may include a current curriculum vitae for the candidate, significant publications, supporting letter, etc.

Deadline for Nominations: March 1, 1992

Submit Nominations to:
Cynthis K. Via, Awards Chair
Pioneer Hi-Bred International, Inc.
400 Locust
700 Capitol Square
Des Moines, IA 50309

SCI-TECH DIVISION
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August 1991-October 1991

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Newington, CT 06111

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856 Woodshire
Cincinnati, OH 45233

Alice Gross
47 E. 87th St.
New York, NY 10028

Gloria J. Guzi
372 Kenilworth Dr.
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TREASURER'S REPORT
FINANCIAL STATUS AT MAY 31, 1991
Prepared by Ellen C. Dotterer, Treasurer

Sci-Tech Division
Allocation of funds:

Checking:	$ 4,882.44
Money Market:	$17,034.30
	$21,916.74

Sci-Tech News
Allocation of funds:

Checking:	$ 3,731.90
Savings:	$10,035.94
	$13,767.84

Note: This report was delayed in transit for publication in the October 1991 issue.

Conference Literature

MARSHA SAYLOR, EDITOR

AEROSPACE

Automation and systems issues in air traffic control. (NATO ASI Series F: Computer and systems sciences Vol. 78). Ed. by John A. Wise, V. David Hopkin, and Marvin L. Smith. New York: Springer-Verlag; 1991. 584 p. $139.00. ISBN 3-540-53903-4.

The theme of the book is expressed in the keynote speech with the statement, "Additional demands for air traffic control services combine to make increased automation of air traffic control in regions with high density traffic inevitable.

The issue is not if there should be automation of air traffic control, but when, how, and how much." At a conference on this topic in June 1990, fifty papers were presented under ten major headings concerning automated aids and their evaluation, human factors workload, training requirements, critical issues for decision makers, and proposals for future systems.

Emphasis is placed on the international requirements as established by the International Civil Aviation Organization (ICAO), the application of the Global Positioning System (GPS), and the findings of the Committee on Future Air Navigation Systems (FANS).

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

ALLOYS

Alloy Phase Stability and Design Symposium. San Francisco: April 18-20, 1990. Edited by G. Malcom Stocks, David P. Pope, and Anthony F. Giamei. Pittsburgh: Materials Research Society; 1991. ISBN 1-55899-075-5.

This international conference proceedings melds the theoretical, experimental and design aspects of metals and ordered and disordered alloys. The general content areas covered include Phase Stability, Mechanical Properties, and Alloy Design.

APPLIED MECHANICS

Mechanics USA 1990: Proceedings of the Eleventh U.S. National Congress of Applied Mechanics (Part 2 of Volume 43, Number 5 of Applied Mechanics Reviews). Ed. by C. F. Chen. New York: American Society of Mechanical

Engineers; 1990. 396 p. ISBN 0-7918-0013-X.

The Eleventh U.S. National Congress of Applied Mechanics was held at the University of Arizona in May 1990. The program consisted of five general lectures on: Directional Solidification of Liquids; High Strain Rate Behavior of Metals; Nonlinear Dynamics, Chaos, and Mechanics; Elastoplastic Analysis of Reissner-Mindlin Plates; and Interacting Galaxies. Additional papers were presented under broad headings of: Solidification; Mechanics Applied to Living; Receptivity Phenomena; Material Instability; Turbulence Theories and Coherent Structures; Failure Modes in Dynamic Fracture; Mechanics of Interfaces and Thin Films; Viscoplasticity; Structural Acoustics and Fluid-Structure Interactions.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

ARTIFICIAL INTELLIGENCE

AAAI-91. Proceedings of the Ninth National Conference on Artificial Intelligence. July 14-19, 1991. Sponsored by the American Association for Artificial Intelligence. Cambridge: MIT Press; 1991. ISBN 0-262-51059-6.

This two-volume set captures the conference themes of interaction and growth. The technical program was strengthened with the addition of seven forums encouraging discussion and exchange. The major topics covered included CASE-Based Reasoning, Communication and Cooperation, Constraint Reasoning and Component Technologies, Formal Methods in Knowledge Representation, Issues in Automated Reasoning, Learning, Planning, Perception, and Robotics, Reasoning About Physical Systems, and Tractable Inference.

DIAMONDS

New Diamond Science and Technology. Proceedings of the Second International Conference. Washington, DC: September 23-27, 1990. Edited by Russell Messier. Pittsburgh: Materials Research Society; 1991. ISBN 1-55899-111-3.

The second conference continued the theme of the first conference "to provide an interdisciplinary forum for the presentation, discussion and exchange of ideas to accelerate the development of novel diamond and related materials." The emphasis is on the interdisciplinary approaches to CVD diamond, high pressure synthesis, and natural diamond. Topic areas covered in the conference included Vapor Phase Diamond, Natural and Synthetic HP/HT Diamond, Gas Phase and Surface Measurements, Gas Phase and Surface Chemistry, Nucleation, Deposition Processes, Characterization, Properties, Diamond-Like Materials, and Cubic Boron Nitride.

ELECTRONIC PACKAGING

Electronic Packaging Materials Science V. Symposium. Boston: November 26-29, 1990. Edited by Edwin D. Lillie et al. Pittsburgh: Materials Research Society; 1991. ISBN 1-55899-095-X.

The materials related issues dealt with in this conference include mechanical and deformation properties of polymer interfaces, protective coatings for

integrated circuits, measurement of material properties and thermomechanical modelling, ceramics and glass-ceramics for packaging, dielectrics for high density packaging, metallization, and joining materials especially as related to reliability and it opposites of stress, fatigue, and creep. The conference stresses future needs and applications, thus the majority of the papers are of a theoretical or experimental nature.

ELECTROPLATING

Proceedings of the 78th AESF Annual Technical Conference-SUR/FIN'91. Toronto, Canada: June 24-27, 1991. American Electroplaters and Surface Finishers Society; 1991.

The 106 papers that comprise this volume cover both experimental and practical aspects of surface finishing and electroplating. The practical aspects of the conference presentations were enhanced with several management seminars devoted specifically to the electroplating industry and its specific needs. The topic areas represented were Zinc and Zinc Alloys, Alloy Plating, Computer Applications, Electroforming, Electronic Applications, Electroforming, Environmental, Pretreatment & Organic Finishing, Light Metals, Brush Plating, Electroless Processes, Research, Vapor Phase Processes, Composite Materials & Coatings, and Statistical Process Control & Analytical Methods.

IONS/PLASMA

Low Energy Ion Beam and Plasma Modification of Materials Symposium. Anaheim, CA: April 30-May 2, 1991. Edited by James M. E. Harper et al. Pittsburgh: Materials Research Society; 1991.

The eight invited papers set the tone for this conference on ion beam and plasma sources. The symposium was designed to show the range of materials that can be modified by plasma and ion beam. The talks covered fundamental aspects of ion-material interactions, microwave ion sources, processing of high-Tc thin films, III-V compounds, silicon, ion processing of oxides, nitrides, polymers, and carbon, and ion processing of metals on an experimental basis.

LIBRARY & INFORMATION SCIENCES

The evolution of library automation: management issues and future perspectives. Gary M. Pitkin, ed. Westport, CT: Meckler Publishing; 1991. 187 p. $42.50. ISBN 0-88736-811-5.

This volume is a collection of papers resulting from a two-day seminar, "Evolution of Library Automation," which was conducted during the Sixth Annual Computers in Libraries Conference. The purpose of the seminar was to identify where library automation is headed, and the issues we will all have to face in the 1990s. The conclusion: emphasis will be on service, defined as access, and that we will all be faced with an increasingly sophisticated and information-oriented clientele. Yes, the evolution continues. The book is divided into three chapters, or concepts: "Perspectives,""Partnerships," and "Reactions." The eleven papers contained in these sections are written by university information professionals and information service

vendors. Each paper presents thought-provoking and analytical, and oft, candid, statements/theories on the evolution of information systems. Taken into consideration are factors such as librarians' demands, technology advances, and clientele expectations. Although the views differ, the one theme Gary Pitkin identified throughout the volume is that, "During the 1990s, the most critical issue in library systems will be providing services to patrons at a rate and accuracy level not previously possible."

Margaret Metcalf Carr
Carmet Research Services
Baltimore, MD

MATERIALS

Constitutive laws for engineering materials: recent advances and industrial and infrastructure applications. Ed. by C. S. Desai, E. Krempl, G. Frantziskonis, and H. Saadatmanesh. New York: ASME Press; 1991. 943 p. ISBN 0-7918-0024-5.

Presents the proceedings of the Third International Conference on Constitutive Laws for Engineering Materials: Theory and Applications, which was held at the University of Arizona in January 1991. One hundred and ninety-five papers, which were delivered at the conference by speakers from the United States, Canada, and many foreign nations comprise this collection. The book is organized under thirteen broad categories to include such topics as unified and coupled theories; elasticity; finite strains, fracture, damage and localization; discontinuities, special materials; and manufacturing aspects. In addition to the theoretical determinations, the testing procedures for various materials and practical applications for engineering purposes are examined. Mathematical models, diagrams, and graphs are effectively used to support the statements of the text. Each paper is generally formatted with an abstract, introduction, theory, numerical solutions, and results with references for additional study.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

MICROWAVES

Microwave Processing of Materials II. Symposium. San Francisco: April 17-20, 1990. Edited by William B.Snyder, Jr. et al. Pittsburgh: Materials Research Society; 1991. ISBN 1-55899-078-X.

The American Ceramic Society and the International Microwave Power Institute co-sponsored this international conference with the Materials Research Society to focus microwave processing technology from both materials and electromagnetic fields. The sixty-four papers cover New Applications and Enhanced Kinetics, Design and Use of Materials Applicators for Materials Processing, Numerical Modeling, Consolidation and Processing of Ceramics, Biological Effects and Medical Applications, Industrial Applications, Polymer and Organic Materials Processing, and Dielectric Properties and Measurements. Due to the proprietary nature of many applications, the Industrial Applications section is limited.

NON-DESTRUCTIVE TESTING

Advanced Tomographic Imaging Methods for the Analysis of Materials Symposium. Boston: November 28-30, 1990. Edited by Jerome L. Ackerman and

William A. Ellingson. Pittsburgh: Materials Research Society; 1991. ISBN 1-55899-109-3.

Tomographic imaging as applied to materials research was the topic of this conference. The twenty-six papers were theoretical and experimental and represent the most advanced work in this area. The general topics were nuclear magnetic resonance, x-ray, diffraction, multi-modality comparison and neutron and protons. This first symposium underlines the increasing demand for non-destructive testing of new structural materials.

PETROLEUM

1991 NPRA Refinery and Petrochemical Plant Maintenance Conference. Phoenix, AZ; May 22-24, 1991. Washington, DC: National Petroleum Refiners Association; 1991.

The conference included two general sessions and two question and answer sessions. It was built around the theme "Moving Forward" with emphasis on quality, technology, safety, reliability, and environmental responsibility. The proceedings contains the full transcript of the question and answer sessions that deals with actual plant problems.

PLASTICS

In Search of Excellence. ANTEC '91, Montreal. The Society of Plastic Engineers; 1991.

This 2600 page plastics conference is composed of 760 technical papers, 5 papers on education and 32 student papers covering all aspects of plastics engineering and production. Sections include Color and Appearance, Extrusion, Injection Molding, Electrical and Electronic, Thermoforming, Engineering Properties and Structures, Vinyl Plastics, Thermoset, Thermoplastic Materials and Foams, Blow Molding, Automotive, Plastics Analysis, Moldmaking and Mold Design, Medical Plastics, Polymer Modifiers and Additives, Advanced Polymer Composites, Plastics Recycling, Failure Analysis, Applied Rheology, High Temperature Polymers, Joining, and Alloys, and Blends.

PRESSURE VESSELS

1991 Pressure Vessels and Piping Conference. San Diego, CA: June 23-27, 1991. Sponsored by the Pressure Vessels and Piping Division, ASME. New York: American Society of Mechanical Engineers; 1991.

This 18-volume set can be purchased individually, with each volume topically oriented. Flow-Induced Vibration and Wear, Structural Dynamics Produced by Extreme Loading Conditions, Power Plant Systems/Components Aging Management and Life Extension, Computer Graphics and Database Management, Active and Passive Damping, Codes and Standards and Applications for Design and Analysis of Pressure Vessel and Piping Components (2 volumes), Advances In Regulation and Package Design for Transportation or Storage of Radioactive Materials, Pressure Vessel Integrity, DOE Facilities: Programs and Systems Interaction With Linear and Non-Linear Techniques, Fatigue, Fracture and Risk, NDE: Applications, Advanced Methods, and Codes and Standards, Transient Thermal-Hydraulics and Coupled Vessel

and Piping System Responses, Pressure Vessels and Components, Seismic Engineering, Service Experience in Operating Plants, Seismic, Shock, and Vibrations Isolation; and Fluid-Structure Vibration and Sloshing were the major topics addressed at this conference. These volumes would be very useful in a mechanical engineering library, especially for a company engaged in any stress analysis and would be an appropriate addition to any university engineering collection.

NOTE: If you wish to obtain a copy of a publication listed here (only those in an unsigned review), write to Marsha Saylor, Hoechst Celanese Corporation, P.O. Box 9077, Corpus Christi, TX 78469-9077, or send a FAX to her at (512)242-4251. Requests will be handled on a first-come, first-served basis.

ELECTRONIC MEDIA REVIEWS

RON BUCHAN, EDITOR

ASTRONOMY

Isaac Asimov's guide to earth and space. By Isaac Asimov (read by Michael Jackson). Beverly Hills, CA: Dove Audio; 1991. 4 audio tape cassettes. ISBN 1-55800-452-1.

How large is the Earth? Do continents move: How old is the Universe? What is the Big Bang Theory? What are black holes, pulsars, quasars, white dwarfs, red giants? How large is the sun? What are asteroids and how did they originate? How were cosmic rays discovered? The four audio cassettes contain eight sessions which provide answers to provocative questions concerning the Earth, space, planets, comets, stars, and galaxies. Interest in these subjects is increased with the naming of the individuals who proposed theories and made measurements to overcome ignorance and open new areas of understanding. The information is presented with typical Asimov clarity and directness which make for a very enjoyable listening experience.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

BOOK MANUFACTURING

The well-built book: art and technology. Stamford, CT: Book Manufactures' Institute. Inc. 28 min. VHS-SP. $49.50.

This video is a real treat for librarians. Although librarians work with books every day, most know nothing of modern book manufacturing. Following a brief introduction on the history of the making of books, the video quickly focuses on modern book production. Bookmaking terminology is introduced and clearly explained as the "text" proceeds. The video is pure pictures and graphics with an informative audio tract. This video should be on library school reserve lists and be required "viewing" for those wishing to practice library science. The basic information and terminology for understanding book production are here; librarians should make it available to as wide an audience as possible. Although the video deals with a very sophisticated technology, it is both fascinating and clear to readers of almost all ages and backgrounds.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

COSMOLOGY

A brief history of time. By Stephen W. Hawking with an introduction by Carl Sagan (Read by Michael Jackson). Beverly Hills, CA: Dove Audio; 1988. 4 audio tape cassettes. Playing time approximately 6 hours. $24.95. ISBN 1-55800-113-1.

Steven Hawking's universe: an introduction to the most remarkable scientist of our time. By John Boslough. Read by Michael Jackson. Beverly Hills, CA: Dove Audio; 1991. 4 audio tape cassettes. Playing time approximately 6 hours. $24.95. ISBN 1-55800-400-9.

Sci-Tech News reviewed Hawking's book in the April 1989 issue on pages 69-70. The wide acclaim and knowledge of this book made it a classic within a few short years. Somehow listening to the tapes make *A brief history of time* seem simpler than reading the book. Hawking's book and Boslough's book about Hawking need to be reviewed together, since they are a perfect pair. The time required to listen to these two sets of tapes may seem long but listening while commuting may be a most rewarding experience. This issue may be the first *Sci-Tech News* issue to contain audiotapes but it certainly won't be the last. The subtitle of *A brief history of time* is *from Big Bangs to Black Holes.* These two topics, essentially cosmological, are tackled head on by Hawking and elaborated on by Boslough. Hawking's enthusiasm for these topics and Boslough's enthusiasm for Hawking jump out at the listener in Michael Jackson's fine reading in a way that the printed page cannot. As books, both are recommended; as audio tapes, they are recommended even more.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

ELECTRONICS

Introduction to random signals and applied Kalman filtering. 2d ed. By Robert Grover Brown and Patric Y.C. Hwang. New York: John Wiley & Sons; 1992. 502 p. $17.50. ISBN 0-471-55922-9.

The word "Applied" in the title is what distinguishes this second edition from the first. The first three chapters of the book provide the necessary background material in random signal analysis. The remaining chapters are concerned with minimum-mean-square-errorfiltering with an emphasis on applications. Major topics of the second edition include: Wiener filtering; Discrete and Continuous Kalman Filtering; Discrete Smoothing and Prediction. Each chapter contains examples and exercises which make it very useful as a classroom text or for self-study. A very practical addition to this edition is an educational Kalman-filter software package. This software makes it possible for the student to solve exercises that would require an extreme amount of effort using the paper-and-pencil method.

Robert Thurston
NASA Center for AeroSpace Information
Operated by RMS Associates

New Science & Technology Journals

LYNN TINSLEY, EDITOR

Bio-medical Materials and Engineering: an International Journal. ISSN 0959-2989. Pergamon Press, 395 Saw Mill River Road, Elmsford, NY 10523. Editor-in-Chief: Rakeo Yokobon. Vol. 1, #1, 1991. US$150. Quarterly.

To provide an interdisciplinary, international forum featuring high-quality reports on materials and engineering for biological and medical systems of interest to a broad bioengineering audience.

Bioorganic & Medicinal Chemistry Letters. ISSN 0960-894x. Pergamon Press, 395 Saw Mill River Rd, Elmsford, NY 10523. Editor-in-Chief: Dale L. Boger. Vol. 1, 1991. DM 695. Twelve issues per year.

A Tetrahedron publication for rapid dissemination of preliminary communications on all aspects of bioorganic chemistry, medicinal chemistry, and related disciplines.

Computational Complexity. ISSN 1016-3328. Birkhauser Verlag, P.O. Box 133, CH-4010 Basel/Switzerland. Managing Editor: J. von zur Gathen. Volume 1, #1, 1991. US$198. 4 issues per year.

This journal presents outstanding research in computational complexity. Its subject is at the interface between mathematics and theoretical computer science, with a clear mathematical profile and strictly mathematical format.

Engineering Data Management Newsletter. Coopers & Lybrand, One Post Office Square, Boston, MA 02109. Consultant Editor: Chris Horrocks. Volume 1, #1, Oct. 1991. US$295. 12 issues per year.

The international monthly guide to the fast and effective implementation, management and use of EDM systems.

European Radiology. ISSN 0938-7994. Martinus Nijhoff, 175 Derby Street, Suite 13, Hingham, MA 02043. Editor: J. Lissner. Volume 1, 1991. DM360. Vol. 2 1992 will be published in 6 issues.

Journal of the European Congress of Radiology (ERC); official organ of the European Association of Radiology (EAR).

GAFA Geometric and Functional Analysis. ISSN 1016-443x. Birkhauser Verlag, P.O. Box 133, CH-4010 Basel/Switzerland. Editor-in-Chief: C.F. Martin. Volume 1, 1991. DM344. 4 issues per year.

The purpose of this journal is to publish mathematically sophisticated

papers in the areas of systems, estimation, and control theory.

Human Factors in Manufacturing. ISSN 1045-2699. John Wiley & Sons, Inc., 605 Third Avenue, New York, NY 10158-0012. Editors: Waldemar Karwowski and Gavriel Salvendy. Volume 2, 1992. US$125 inst. 4 issues per year.

Devoted exclusively to information on human involvement in the development and application of new manufacturing technologies and systems.

Journal of Nutritional Immunology. ISSN 1049-5150. Haworth Medical Press, 10 Alice Street, Binghamton, NY 13904-9981. Editor-in-Chief: Julian E. Spallholz. Volume 1, #1, 1992. US$75.

Provides a publishing and informational forum for research scientists that bridges the classical disciplines of nutrition and immunology. Features original research, brief communications, and reviews.

Journal of Systems Engineering. ISSN 0938-7706. Springer-Verlag. 175 Fifth Avenue, New York, NY 10010. Editor: D.T. Pham. Volume 1, 1991. US$191. 2 issues in 1991.

Encompasses all subjects pertinent to systems engineering; systems analysis, modeling, simulation, optimization, synthesis, operation, monitoring, identification, evaluation diagnosis, and control.

Machine Vibration. ISSN 0939-7418. Springer-Verlag, 175 Fifth Avenue, New York, NY 10010. Editor-in-Chief: D. G. Gorman. Volume 1, 1992. US$204. 4 issues per year.

Experimental and analytical studies of vibration from machinery.

Nanostructured Materials. Pergamon Press, 395 Saw Mill River Road, Elmsford, NY 10523. Published on behalf of Acta Metallurgica, Inc. Volume 1, 1992. US$250. 6 issues per year.

The aim of this journal is to provide an international and interdisciplinary forum for the effective dissemination of scientific and technical information on the synthesis, processing, theory, and computational modeling of nanostructured materials.

Potential Analysis. ISSN 0926-2601. Martinus Nijhoff, 175 Derby Street, Suite 13, Hingham, MA 02043. Editor-in-Chief: D. Feyel. Volume 1, 1992. Dfl. 320. Quarterly.

An international journal devoted to the interactions between potential theory, probability theory, geometry, and functional analysis.

BOOK REVIEWS

RON BUCHAN, EDITOR

AEROSPACE

Dictionary of space technology. Ed. by Mark Williamson. New York: Adam Hilger; 1990. 401 p. $50.00. ISBN 0-85274-339-4.

The specialized terminology, abbreviations, and acronyms developed to explain space parameters are presented in a manner which is a compromise between an encyclopedia and a dictionary. The major entries are classified under twelve headings: space technology, communications, propulsion, launch vehicles, manned spaceflight, the space shuttle, space centers and organizations, orbits, propellants, materials, physics and astronomy, and miscellaneous.

A special index identifies each subject with respect to the major heading under which it is listed. The definitions are clear and concise and also contain appropriate cross references to related subjects. The significant parameters of each definition are shown in heavy print for easier location. The logical arrangement, the easily understood text, and the use of photographs and sketches make this book a valuable reference to readers with many levels of interest in space.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Far encounter: the Neptune system. By Eric Burgess. New York: Columbia University Press; 1991. 192 p. $34.95. ISBN 0-231-07412-3. (Uncorrected proof)

The Voyager space probe, during a twelve-year grand tour of the Solar System from 1977 to 1989, provided the first close-up look at the outer planets. Because of its remoteness, the very incomplete knowledge of the planet Neptune had been derived from limited astronomical observations. One of Voyager's objectives was to gather facts about Neptune's magnetic field, magnetosphere, and rotational period with additional data on the size, mass, density, heat balance, satellites, and planetary rings. The book presents clear descriptions of the Voyager, the information which was obtained, the conditions existing on the outer planets and their satellites, and the means by

which the information was obtained. A generous collection of figures and photographs with excellent captions provides visual evidence of the planetary characteristics. Principal findings have been tabulated for easy reference, and a glossary is provided to improved understanding.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Modern research topics in aerospace propulsion: in honor of Dr. Corrado Casci. Ed. by G. Angelino, L. DeLuca, and W. A. Sirignano. New York: Springer-Verlag; 1991. 375 p. $69.00. ISBN 0-387-97417-2.

Mechanics and thermodynamics of propulsion. 2d ed. By Philip G. Hill and Carl R. Peterson. Reading, MA: Addison-Wesley Publishing Co.; 1992. 754 p. ISBN 0-201-14659-2.

A tribute to the accomplishments of Dr. Corrado Casci in the field of aerospace propulsion is contained in book one with his curriculum vitae and a list of the 121 publications which he authored during an illustrious career as a scientist, engineer, and professor. The book is organized under five broad categories of: combustion, liquid sprays, computational fluid dynamics, turbomachinery and power cycles, and flight dynamics. Eighteen papers by thirty-four contributors examine subjects such as: mechanics of turbulent flow in combustors, flame propagation through multicomponent fuel spray clouds, hypersonic nonequilibrium flows, flow in axial flow compressors, and turbines for space applications. Each paper contains excellent charts, tables, mathematical models, definitions, and extensive references of related publications.

The second book is the second edition of a reference on the advancements in aircraft and spacecraft propulsion since the first edition and also indicates developments which may be expected. Three parts cover subjects of: fundamental sciences, air-breathing engines, and rocket engines. Fourteen chapters include detailed information on jet propulsion principles, fluid flow, gas flow, boundary layer mechanics, aerothermodynamics of inlets, compressors, and nozzles, axial turbines, centrifugal compressors, performance of rocket vehicles, chemical propellants, and electrical rocket propulsion.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Space weapons and the strategic defense initiative. By Crockett L. Grabbe. Ames, Iowa: Iowa University Press; 1991. 245 p. $27.95. ISBN 0-8138-1277-1.

The goal of President Reagan to build an effective defense of the United States against nuclear attack became known as the Strategic Defense Initiative (SDI). The author discusses historical events leading up to SDI, the budgetary aspects, and the several concepts which have been proposed. Twelve chapters examine subjects such as intercept systems, mid-course and terminal intercept, requirements for a defensive system, arms control treaties, and space weapons with respect to economy, nuclear war, and disarmament. Twenty-three appendices concern specific topics of laser principles, orbiting-mirror defense requirements, international agreements,

and technological parameters. Tables and diagrams are widely used to support the text, and a glossary which defines the unusual terms makes this an easily read and interesting treatise on SDI.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

The Sputnik crisis and early United States policy. By Rip Buckeley. Bloomington, IN: Indiana University Press; 1991. 314 p. $29.95. ISBN 0-252-31281-7.

The events which preceded the successful launching of the Soviet Sputnik satellite in October 1957 and the space policies of the United States are examined. Actual statements made by Presidents, politicians, and scientists of the period between the end of World War II and the beginning of the Korean conflict reflect the prevailing attitude of the United States concerning an effective space program. The Truman and Eisenhower administrations are compared to show the respective areas of interest and support. The findings of many scientific and governmental organizations, the proposals concerning satellite development, Congressional hearings, and independent views are presented to show the divergent opinions. Many references support the statements made in each chapter and establish the credibility of the author. The logical organization of the facts and the extensive coverage answer many questions on early attitudes about the importance of space.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

To fly through the air: the experience of learning to fly. By Tom Morrison. Ames, Iowa: Iowa University Press; 1991. 188 p. $23.95. ISBN 0-8138-0348-9.

In a very entertaining account the author discusses his experiences while undergoing training to become a rated instrument pilot in light aircraft. His flying was done in Victoria, British Columbia, and he explains the similarities and differences in Canadian versus United States requirements. In a non-technical manner he describes the physics of flight, aircraft characteristics, communication procedures, navigation systems, aerobatics, instrument flight, and cross-country operations. Thirty-two chapters contain accounts of his problems, accomplishments, and eventual success in completing the written and practical examinations leading to his various ratings. He sums up his feelings about flying with the statement that there is joy in the sunlit heavens, but a tinge of sorrow for those who cannot share this with me. Up here in the sky the responsibility is absolute, so is the freedom.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Zeppelins of World War I. By Wilbur Cross. New York: Paragon House; 1991. 220 p. $18.95.

The author has dramatized the story of the German airships of World War I, utilizing the original notes of his personal friend, Captain Hans von Schiller, who had collected documents, photographs, and reminiscences from airship commanders and pioneers he knew as personal friends and colleagues.

Eight pages of photographs, many never before published, are included. Technical details of the evolution of Zeppelin design and operation resulting from war usage are expressed in layman language; particularly the efforts of Fregatenkapitan Peter Strasser, who headed the German Naval Airship Division from September 1913 until his fiery death in the L-70 in August 1918, at 42 years of age.

Many raids over Great Britain are detailed in simulated first person accounts of survivors. British and German sources are utilized with a bias in the German accounts from those existing in books of British sources already in print. Survivor reminiscences tend to overdramatize events, and must be allowed for.

An epilogue is included, covering, in part, the destruction of the U.S. Naval dirigible "Shenandoah," the ZR-1, built to plans of the captured Zeppelin L-49 during the war; the "Italia" of Italy; and "Dixmude" of France; the R-101 of Great Britain, and our own "Akron" and "Macon." The destruction of the Hindenburg is mentioned, but with little detail; nor is much information given of the "graf Zeppelin." This book makes fascinating reading of this important episode in aviation history.

R. F. Dodd, Retired
Westinghouse Electric Corporation
Defense and Space Company

ARCHITECTURE AND BUILDING

ASHRE terminology of heating, ventilation, air conditioning, and refrigeration. 2d ed. Ed. by Robert A. Parsons, Claudia Forman, and Andrea S. Andersen. Atlanta, GA: American Society of Heating, Refrigerating, and Air Conditioning Engineers, Inc.; 1991. 140 p. $36.00. ISBN 0-910110-77-8.

Definitions of the terms used in the technology for producing and maintaining comfortable environments are presented in section 1. Additional sections define physical and engineering principles, terms and keywords for information retrieval, administrative abbreviations, engineering abbreviations, the International System of Units (SI), and conversion factors. The entire text, the symbolic representations, and the tables of data are well organized and clearly presented. Although directed toward a specific engineering discipline, this excellent reference contains information applicable to many technical areas.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Airport terminals. By Christopher J. Blow. Stoneham, MA: Butterworth-Heineman; 1990. 179 p. $95.00. ISBN 0-7506-1278-9.

Spurred by the ever-increasing demand for air transport, the passenger and freight terminals of today have evolved from a crude shack on an austere landing strip to modern architectural marvels engineered for the most efficient accommodation of people and equipment. The five requirements which dictate the structure of the terminal are given as security, density of traffic, commerce, airline traffic patterns, and government controls. The book consists of seven divisions: terminal design principles; a taxonomy of aircraft terminal forms; external landside factors; redevelopment of existing airport terminals; terminal design details; external airside factors;

and reflections on the future of airport terminals. The characteristics of the largest international air terminals are examined to show the external and internal architecture, the traffic flow within the terminal, the facilities provided for the passengers, and the structural details required by environmental standards and control. An excellent selection of architectural drawings, diagrams, photographs, and maps provide complete coverage of the different approaches to constructing and organizing modern airport terminals which have all the attributes of a small city.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

American capitols: an encyclopedia of the state, national and territorial capitol edifices of the United States. By Eldon Hauck. Jefferson, NC: McFarland & Co., 1991. 319 p. ISBN 0-89950-555-1.

The Nebraska state capitol: a harmony of the arts. Ed. by Frederick C. Luebke. Lincoln: University of Nebraska; 129 p. ISBN 0-8032-287-2.

National, state and territorial capitol buildings represent the best efforts, if not always the best results, of American architectural expression. The very scale, importance, and symbolism of these buildings demand attention to their architectural statements. Most state capitol buildings culminate in dome structures resembling the U. S. Capitol. Many state capitol buildings, such as the one in Annapolis, Maryland, predate the U. S. Capitol. Luebke's book on the Nebraska state capitol (lacking a dome) is a fine collection of essays and pictures giving a detailed look at a monumental building whose interior decoration complements and enhances the basic architecture. It would be nice if there were such a book as *The Nebraska State Capitol* for each capitol listed in *American Capitols. Hauck's American Capitols* includes an extensive bibliography for further reading.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

Architectural drawing: options for designs. Paul Laseau. New York: Design Press; 1991. 197 p. $18.95. ISBN 0-8306-8008-X.

This book provides a well-illustrated overview of the roles of drawing in architectural design. Rather than redundantly discussing rendering techniques, the author encourages designers and architects to become aware of drawing as an integral part of the design process. Chapters illustrating View, Subject, Setting, Medium, and Level of Abstraction reveal how sensitivity to these issues can help to stimulate the thinking process and enhance the communication value of a drawing for the architect himself or towards a specific audience. Laseau sees renderings for clients as not just representations of proposals but as opportunities to provide useful verbal dialog between architect and client. The author includes discussions of computer technology, glide perspective (developed by researcher Kevin Forseth), and reverse perspective (developed by artist David Hockney) to assert further the advantages of using drawing as a tool of exploration in the design process.

Bruce Ansley
NASA Center for AeroSpace Information
Operated by RMS Associates

Architecture: the story of practice. By Dana Cuff. Cambridge, MA: MIT Press; 1991. 306 p. $24.95. ISBN 0-262-03175-2.

The architect's image in our society is confused, representing various aspects of that profession: the artistic visionary, the gentleman designer, the competent technician.

In her book, Dana Cuff examines the world of the architectural profession in a sociological study and reveals many contradictions which are inherent to its culture: ideals of the individual designer versus the collaborative effort; between the desire for artistic expression versus the exigencies of business; between the mindset taught in the architectural professional schools and the realities of actual professional practice. She notes how the profession, by virtue of its lack of clarity of its own mission, has lost many parts of its purview to other professions (engineering, landscape and interior design, urban planning, etc.). The book draws upon many case studies, interviews, observed meetings, surveys involving over 80 architectural firms.

To rectify the mismatch between professional culture and real practice, Cuff suggests that architects rethink their roles in a more interactive, collective way, reflecting the actual processes by which buildings are designed and constructed; she advocates a new approach in the architectural schools to stress technical breadth, managerial and collaborative skills in addition to artistic ones.

This book is enlightening for those who have a strong connection to the architectural profession, but, while very insightful, it is probably too esoteric unless the reader maintains a strong academic interest in professional corporate culture.

Thomas E. Luebke
Mayors Institute on City Design
National Endowment for the Arts
Washington, DC

Art & architecture thesaurus. Toni Peterson, Director. New York: Oxford University Press; 1990. 3v. $250.

This review focuses on the architectural content of this thesaurus. Fortunately for readers interested in architectural terminology this is the best single source. The hierarchical volume (v.1) lists five sequences of architectural and building terms which total 3,714 terms plus others under other headings. Taxonomically speaking, these lists, which show BT/NT relationships, are more exhaustive and detailed classifications rather than the more practical hierarchies seen in most working thesauri. An interesting feature of the *Art & architecture thesaurus* is the use of "Guide Terms" which provide meaningful groupings of terms not displayable in normal BT/NT relationships "Elevators" can thus be grouped by form, function and mode of operation rather than the traditional BT/NT. The hierarchical relationships are displayed in much the same manner as the Generic Structure of the NASA Thesaurus and as such these relationships are clear and self evident to the user. The remaining two volumes are alphabetical and present a wealth of information about terms including major source code, line number, alternate term, scope note & source, lead-in terms, and classification notation. Singular (alternate term) forms are listed, and inverted terms are provided along with the traditional

UF references for synonyms. The format and presentation of the data are superb with rich black binding, good typography, excellent lined hierarchy and subtle illustrations which artistically convey the subjects of the thesaurus. The next edition promises to include Related Terms.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

The building envelope. By Alan J. Brookes and Chris Grech. Stoneham, MA: Butterworth-Heinemann; 1990. 132 p. $47.50. ISBN 0-408-50030-1.

This profusely-illustratedvolume is a selection of 33 case studies of modern buildings throughout Western Europe, Australia, and North America. Although these buildings range from a small private house to a sizable airport terminal, they are all architecturally significant buildings that incorporate advanced forms of state-of-the-art construction technology, such as tensile structures or silicone-glazed cladding finishes. The authors clearly explain the various forms of "high-tech" new material construction, which provides the reader with an engrossing glimpse at large-scale construction developments of the past decade. Not intended as a comprehensive catalog of modern construction, this book is a tantalizing guide of current trends in construction technology.

Bruce Ansley
NASA Center for AeroSpace Information
Operated by RMS Associates

The building systems integration handbook. Ed. by Richard D. Rush. Stoneham, MA: Butterworth-Heineman; reprinted 1991. 450 p. $29.95. ISBN 0-7506-9198-0.

Presented is a context in which designers of buildings can examine the nature of integration that commonly occurs in building design and apply these concepts for improved architectural developments. Four systems of structure (S), envelope (E), mechanical (M), and interior (I) and five levels of integrating: remote, touching, connected, meshed, and unified are examined to show the conditions for two-system, three-system, and four-system combinations. Following an introduction, six chapters examine subjects such as: Integration in Practice; Case Studies; Generic Examples; Products; Integration for Performance; and Integration Theory. Requirements for spatial, thermal, air quality, acoustical, visual, and building integrity are discussed with respect to the various levels of integration. Many architectural drawings and photographs are used to support the text. The liberal use of charts and tables provides condensed data and actual examples are discussed for greater understanding. In addition to structural matters, considerable attention is given to spatial performance as it impacts on human factors and man-machine relations. An appendix contains fifteen isometric drawings of generic samples which identify specific structures by the type of construction and the materials used.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

The CAD design studio: 3D modeling as a fundamental design skill. By Stephen Paul Jacobs. New York: McGraw-Hill; 1991. 120 p. $29.95 (hardcover), $19.95 (paperback). ISBN 0-07-03227-9 (hardcover). ISBN 0-07-032228-7 (paperback).

The author states that computer-aided design (CAD) models will become the standard means of design communication for architects, especially for architecture students when computer techniques are used for creating improved architectural imagery. 3D CAD modeling allows the development of interpretations of a single idea. The flexibility of the graphic information, combined with the editing power of the software, permits rapid transition from analysis to generation to testing of alternatives. The book contains exercises for becoming familiar with CAD and discusses subjects such as object placement and observation, editing objects, custom objects, collective action, graphic subjects, and analysis techniques. Many isometric drawings of architectural structures are provided to demonstrate the advantages of three-dimensional models as a creative medium over the customary two-dimensional representations. This treatise is an excellent example of the application of computers to develop improved accuracy and efficiency in a highly specialized field.

Philip N. French
NASA Center for AeroSpace Information
Operated by RMS Associates

Concise encyclopedia of building & construction materials. Edited by Fred Moavenzadeh. Cambridge, MA: MIT Press; 1990. 682 p. $175.00. ISBN 0-262-13248-6.

This reference book is one in a series published after the release of *Encyclopedia of Materials Science and Engineering.* Intended to update articles contained in the parent encyclopedia, this book also includes new articles and is a stand-alone reference, independent of the parent encyclopedia. The 124 articles contained in this reference work are listed alphabetically, but fall into eight general categories: Economics and Availability of Materials; Building Materials-General; Mechanical Properties; Clay, Ceramics, Cement, Sand, and Gravel; Glass; Metals; Polymers, Plastics, and Composites; and Wood. Each article is cross-referenced with others in the book and includes a bibliography for additional suggested reading.

Bruce Ansley
NASA Center for AeroSpace Information
Operated by RMS Associates

Cranes and derricks. By Howard I. Shapiro, Jay P. Shapiro, and Lawrence K. Shapiro. 2d ed. New York: McGraw-Hill; 1990. 465 p. $48.00. ISBN 0-07-056422-1.

A common sight in today's skylines is cranes and derricks, high above rising new skyscrapers. Also on the ground, terrain cranes and hoists are actively used in construction and moving of heavy loads. A check of the catalogs of several engineering libraries shows that the existing literature in this field is scattered and disorganized. The original edition of

this book, which was written by a team of experts in the field, successfully laid out the correct state-of-the-art and the basic planning and considerations that must be involved when using such equipment in a heavy construction project. This second edition, ten years later, incorporates the use of new equipment such as telescopic and "all terrain" cranes and the safety and loading problems associated with them. The author's philosophy is to "plan ahead" before getting into the job, and this book provides a firm foundation for such planning.

Robert J. Havlik
University of Notre Dame

Design and construction failures: lessons from forensic investigations. By Dov Kaminetzky. New York: McGraw-Hill; 1991. 600 p. $59.00. ISBN 0-0-7-033565-6.

Failures in the design and construction of buildings can be a nightmare of destruction, death and cost. It is the goal of forensic engineering to analyze such failures, learn from the experience and recommend how to prevent future occurrences. This book is written by a forensic expert and is based upon his experiences over 40 years. His conclusions are that, "all failures are caused by human errors," and that "the most important factor which could reduce the level of failures is education and training." He demonstrates his beliefs with over 600 illustrations and detailed analysis of failures in concrete, structural steel, masonry, foundations and corrosion, many of which have made headlines. He recommends procedures for failure investigation, the use of expert witnesses, the role of responsibility in design and construction, and how design and construction can be improved to prevent these disasters.

Robert J. Havlik
University of Notre Dame

Glossary of soil mechanics and foundations. By Francois Richard. Ottawa, Canada: Canadian Communication Group Publishing; 1990. 99 p. ISBN 0-660-55841-6.

Canada is a bilingual country and as a result has an obligation to promote effective communication within the federal Public Service. This is especially important in technical areas where an error in interpretation could cause a disaster. The Canadian Government Translation Bureau has produced many terminology bulletins and glossaries covering numerous fields of technology and industry. This glossary of soil mechanics and foundations lists in parallel columns, commonly-used English and French terms in the field. The English terms are printed in blue, the French in black. Each term is printed alphabetically in the left column with the equivalent on the right. There are no cross references. There are notes in both languages and there is a bibliography of the sources used to compile the glossary. This glossary will be of value to geologists, civil engineers and persons in the construction industry.

Robert J. Havlik
University of Notre Dame

H.H. Richardson: architectural forms for an American society. By James F. O'Gorman. Chicago, IL: The University of Chicago Press; 1991. 186 p. $12.95, paper. ISBN 0-220-62070-6.

Master architects seem to rise and influence a whole era. Such is the case

with H. H. Richardson, whose Trinity Church in Boston, completed in 1877, epitomized his work and influenced American architecture for decades. In fact his massive style and round arches became known as Richardsonian Romanesque. This appellation reflected his study of architecture in Europe. Frank Lloyd Wright called him the "grand exteriorist." Richardson designed several libraries in his characteristic stone exterior, including the octagonal Chancellor Green Library at Princeton University. The Princeton Library was designed with the reference desk in the center to be equidistant for all of the books. Richardson's work was not confined to public buildings; he designed residences as well. Richardson challenged master builders and stonemasons to build the best with stone, and they used sophisticated technology to do it.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

New spirit in architecture. By Peter Cook and Rosie Llewellyn-Jones. New York: Rizzoli; 1991. 204 p. $50.00 hardcover. ISBN 0-8478-1263-4. $35.00 paperback. ISBN 0-8478-1264-2.

The forty architects from around the world who are discussed in this book represent the best of contemporary architecture. The large format and interspersing of photographs and drawings of buildings make this a browsable book for the architect and novice alike. Most architects are treated in four pages that are supplemented with project lists for each architect or group of architects. My favorite is a Hungarian architect named Imre Makovecz. His forte is the unusual use of wood that rolls and flows while covering exteriors and supporting interiors of public buildings. Most of the architects represented display an unusual use of structures, placing demands on the technology of builders. This book displays a wide range of the art and technology of modern architecture.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

Ornamental ironwork: an illustrated guide to its design, history, and use in American architecture. By Susan and Michael Southworth. Photographs by Charles C. Withers. New York: McGraw-Hill; 1992. 217 p. $26.95. ISBN: 0-07-059804-5.

The intertwining of art and technology is readily seen in *Ornamental Ironwork.* The blacksmithing heritage is still being carried out today and is documented in the appendix by a listing of 128 ironworkers in the United States and Canada. The book traces by region examples of the entire history of American ironwork. The numerous fine illustrations are united by interwoven text and captions. The utilitarian function of ironwork as fences, gates, balconies, and handrails gives way to fanciful artistry that gives function a life of its own. The virtues of wrought and cast iron techniques are brought out with an obvious affection for wrought iron. New Orleans, Charleston, Savannah, Galveston, Philadelphia, Boston and New York are places where the art and technology of the ironworker shine through the ages.

Ronald L. Buchan
NASA Center for AeroSpace Information
Operated by RMS Associates

Rock engineering applications. By John A. Franklin and Maurice B. Dusseault. New York: McGraw-Hill; 1991. 431 p. $49.50. ISBN 0-07-021889-7.

This book is a sequel to *Rock Engineering* by the same authors and publisher. While the earlier volume described the character of rocks, their properties and how they can be used, this volume discusses how this knowledge can be utilized both at the surface and underground. The first section describes quarrying, landslides, and excavations, foundations, dams and reservoirs. The second section covers tunnels, caverns and underground spaces; underground mining and oil, gas and geothermal energy. The book is interesting, authoritative and well illustrated, and is primarily devoted to case histories and discussions.

Robert J. Havlik
University of Notre Dame

Rock mechanics: theory and applications with case histories. By Walter Wittke. Translated by Richard Sykes. New York: Springer-Verlag; 1990. 1075 p. $150.00. ISBN 3-540-52719-2.

While hymns sing of the solidness and stability of rock, to the engineer a rock mass is subject to stresses, strains, deformation, swelling and seepage just as any other building material. Rock mechanics is the study of the mechanical behavior and permeability of rock masses in order to develop procedures to investigate the stability of openings, foundations and slopes in rock masses. All this is necessary for the construction of dams, tunnels and underground structures. This thick, heavy volume is a translation of a German work by one of the outstanding experts in the field. It is divided into five major sections: A) Conceptual Models; B) Analysis Procedures; C) Application of Analysis Procedures; D) Rock Mechanics Investigations; and E) Design and Construction of Engineering Structures in Rock. Numerical models and methods for evaluation and testing rock, as well as illustrations of structures in rock are presented with the goal of application to cost effective construction.

Robert J. Havlik
University of Notre Dame

COMMUNICATIONS

Latest intelligence. By James E. Tunnell. Ed. by Helen L. Sanders. Blue Ridge Summit, PA: TAB Books; 1990. 305 p. $16.95. ISBN 0-8306-3531-9.

The constant modification of language, technological developments, and the acceptance of new acronyms, abbreviations and terminology have resulted in specialized methods of communication which require a dictionary to explain the meaning and usage of these terms. In an alphabetical arrangement, more than 35,000 entries provide definitions of military and civilian subjects and their applications to areas of weapon systems, law enforcement, fire fighting, communication frequencies, the Q-codes, the ten-codes, the twelve-codes, road condition codes, and command codes used by the police communicators. The unusual terms used in the language of the narcotics trade are especially well defined. International relations are examined to show political groups, military organizations, treaties, and radio call signs. Three appendixes provide information on law enforcement agencies;

U.S. military bases; a bibliography of specialized publications for additional information; and the addresses of organizations which maintain databases on intelligence activities.

Philip N. French
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Operated by RMS Associates

LIBRARY & INFORMATION SCIENCES

Describing archival materials: the use of the MARC AMC format. Ed. by Richard P. Smiraglia. Binghamton, NY: Haworth Press; 1990. 228 p. $29.95. ISBN 0-86656-916-2.

This volume provides an overview of the use of the MARC format for Archives and Manuscript Control (AMC). Most importantly it provides an introduction to archival description to librarians and in turn introduces archivists to various library cataloging techniques and resources. The book presents the basic principles of archival description for both textual and non-textual materials accompanied by examples of the MARC AMC format. An important issue presented in the book is the need for the adoption of a controlled vocabulary in archival description. This issue is considered by many archivists to be sacrilegious, but the book does make a good case for the use of a thesaurus or authority file. The most interesting chapters in the book deal with the creation of the MARC AMC format, and the techniques for describing photographs, sound recordings, and cartographic records. One caveat is that the uninitiated archivist may need to have access to the *Anglo-American Cataloging rules (AACR2),* the *Library of Congress Subject Headings (LCSH),* and *Archives, Personal Papers, and Manuscripts (APPM),* in order to fully understand the first three sections of the book.

Sarah H. Turner
NASA History Division
Labat-Anderson, Inc.

Essential guide to dBase IV in libraries. By Karl Beiser. Westport, CT: Meckler Publishing; 1991. 365 p. $40.00. ISBN 0-88736-530-2.

This book is loaded with written programs for numerous library technical service and public-access applications and functions, Beiser does his best to sell dBase IV as the ONLY option in purchasing a general high-end database management program for a library setting. And he provides several arguments and justifications for choosing dBase IV. Moreover, for $80.00 and filling in a form, one can receive a set of diskettes containing the programs, data files, index files, format files, query files, report forms, and text files discussed in the hardcover volume. Even if one decides to customize the programs even further, Beiser's work will take out a lot of the guesswork and planning that would otherwise be required. One word of warning, Beiser is writing to a reader with dBase or dBase-compatible program knowledge. This, I think, would not be a problem to anyone choosing this book, however. The one interesting issue is that Beiser does not seem to address the one "flaw" that so many users, or potential users, of dBase point out: the limitations of the fixed-field lengths. Perhaps this will be addressed, or will no longer need to be

addressed in his next edition of the *Essential guide to dBase....*

Margaret Metcalf Carr
Carmet Research Services
Baltimore, MD.

Indexing and abstracting in theory and practice. By F. W. Lancaster. Champaign, IL: University of Illinois; 1991. 328 p. $39.50 plus $2.00 shipping. ISBN 0-87845-083-1.

Lancaster provides detailed instructions, information on theories, techniques, evaluation methods, and handy check lists for the beginning abstractor and/or indexer. The section on automatic indexing needs improvement, but the literature in this area is correspondingly inadequate. Twenty-three pages of references, a glossary, a fine index, and exercises for practice make this an excellent text for librarians and others who need to learn abstracting and indexing skills.

June P. Silvester
NASA Center for AeroSpace Information
Operated by RMS Associates

Information industry human resources: a 1990 survey. Ed. by Wendy Schipper and Ann Marie Cunningham. Philadelphia: NFAIS; 1991. 226 p. Paperback. $150.00. NFAIS members; $240.00 non-members. ISBN 0-942308-32-8.

The National Federation of Abstracting and Information Services (NFAIS) surveyed their members and comparable secondary information publishers regarding their policies and practices for 16 different types of jobs. Fifty-two completed questionnaires (a 19% response rate) supplied the information compiled here. The survey covers such items as organizational policies on recruitment, probationary periods, performance reviews, vesting for retirement, leave, job requirements, training opportunities, and pay ranges. Statistical tables provide comparisons by for-profit, not-for-profit, government, and other employers, as well as by organization size. Comment sections and summaries profile each job surveyed, and highlight the requirements and perquisites that go with it This is an important document for human resources management.

June P. Silvester
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MATERIALS

Analysis for design of fiber reinforced plastic vessels and pipings. By S. V. Hoa. Lancaster, PA: Technomic Publishing Co. Inc.; 1991, 596 p. ISBN 0-87762-872-6.

Fiber reinforced plastics (FRP) vessels are used primarily in the chemical processing industry for their strength and resistance to corrosion. The design requirements of this equipment are presented in section 10 (1989) of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code. The book examines the knowledge which already exists on the properties of composite materials and modifies this information application to fiberglass structures. FRP vessels and pipes have bound end uses in industrial, military, and aerospace applications for specific purposes. Seven chapters cover subjects such as: the properties of constituent layers, laminate theory, internal pressure loading, stability of FRP vessels, thermal stress analysis, and the effect of

discontinuities, with emphasis on the design of cylindrical shells subjected to internal pressures.

Philip N. French
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Composite plates impact damage: an atlas. By Scott R. Finn and George S. Springer. Lancaster, PA: Technomic Publishing Co., Inc.; 1991. 425 p. $95.00. ISBN 0-87762-868-8.

Modern technology makes much use of fiber reinforced matrix composites. When subject to non-penetrating, transverse dynamic and static loads, these materials may be damaged imperceptibly, and reduce the usefulness of the part to a dangerous level. Good design is one way of protecting the parts from such hidden damage. This atlas is a collection of x-ray and c-scan images representative of some of the damage than can be caused under a wide range of conditions. The early chapters describe the conditions and how the tests were made. Although the number of examples is limited due to the large variables of composites and conditions, it is still a good start toward understanding and reducing damage in these materials.

Robert J. Havlik
University of Notre Dame

Materials handbook: an encyclopedia for managers, technical professionals, purchasing and production managers, supervisors, and foremen. 13th ed. By George S. Brady and Henry R. Clauser. New York: McGraw-Hill; 1991. 1,056 p. $74.50. ISBN 0-07-00704-1.

This handbook consists of two major parts. The substances in part 1 are listed alphabetically with their uses and characteristics briefly discussed. More than 15,000 items, such as chemicals, metals, minerals, fuels, plastics, industrial products, and natural plant materials are examined from Abrasives to Zirconium silicate. Part 2 discusses the structure of matter; waves and colors as materials elements; property of flavor in materials; and fundamentals of biotic materials. The book concludes with definitions of physical and chemical properties and data on specific gravity tensile strength, highest useful temperature, hardness, and electrical conductivity. This handbook was first published in 1929 and has come to be recognized as the leading reference work of this kind in the world.

Philip N. French
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MATHEMATICS

Journey through genius: the great theorems of mathematics. By William Dunham. New York: Wiley; 1990. 290 p. $19.95. ISBN 0-471-50030-5.

Taking data from the history of mathematics through the ages, the contributions of nine mathematicians are examined. Each presentation is organized in three parts: the historical significance; biographical aspects; and the actual development of the theorem. A working knowledge of arithmetic and geometry is sufficient to follow much of the material, with elementary trigonometry and calculus required in a few cases. Where appropriate, the proofs are accompanied by drawings, diagrams, and formulas, which provide easier understanding of the text. The findings of more prominent

persons such as Euclid, Pythagoras, Archimedes, and Isaac Newton, are joined with those of lesser known persons to provide coverage of several fields of mathematics. Many examples of the original manuscripts are inserted to support the authenticity of the statements and to show the permanence associated with the logically developed theorems. The theme of the book is expressed in the statement that in the science of mathematics alone each generation adds a new story to the old structure.

Philip N. French
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MECHANICAL ENGINEERING

Dudley's gear handbook: the design, manufacture, and application of gears. 2d ed. Editor in Chief, Dennis P. Townsend. New York: McGraw-Hill; 1991. 1,040 p. $75.00. ISBN 0-07-017903-4.

Darle W. Dudley, President of Dudley Engineering Company, Inc., San Diego, CA, is probably one of the most knowledgeable people in the world regarding the design, manufacture and application of gears. He has published numerous handbooks and manuals on gears and gearing. His most comprehensive handbook was published in 1962. Since then there has been much new knowledge acquired, especially on gear vibration and gear noise. The new second edition of the handbook is now under the editorship of Dennis P. Townsend of the NASA Lewis Research Center. Twenty-six contributors, including Dudley, have completely updated the handbook with several new chapters on recent advancements. This is probably the most complete handbook on gears and gearing in print and will be of value to all working engineers using gears of any type.

Robert J. Havlik
University of Notre Dame

PACKAGING

Electronic packaging and interconnection handbook. Charles A. Harper, Editor in Chief. New York: McGraw-Hill; 1991. 1,120 p. $79.50. ISBN 0-07-026684-0.

In its broadest sense, electronic packaging is defined as "the combination of engineering and manufacturing technologies required to convert an electronic circuit into a manufactured assembly." Because of the physical and cost effects of mounting, packaging, connecting and insulation on electronic components, such a broad definition includes many interdisciplinary technologies. More than 20 specialists have contributed papers to this handbook. The papers are grouped into three major sections: Fundamental Technologies, Interconnection Technologies, and System Packaging Technologies. There are numerous charts, tables, homographs, illustrations and photographs dealing with components and systems as well as up-to-date references to conference papers, technical reports and handbooks.

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LOOKING BACKWARD

ELLIS MOUNT

Recruiting bright, well-trained people who would be interested in becoming special librarians in sci-tech libraries has never been easy. The general experience of managers of such libraries is that when an opening occurs for a job in which a sci-tech education is either required or highly desirable, there are not many suitable applicants from whom to choose. Applicants are in plentiful supply, especially in these days of slowdowns in business and government, but **qualified** applicants are another matter.

Many long-term members of SLA have long felt that we have not done well at informing students in college and university sci-tech programs about special libraries. Thousands of students in these subjects graduate from school without ever knowing about opportunities in our libraries. In view of the great number of schools, each with several departments in sci-tech disciplines, reaching such groups is not a trivial matter.

In the Winter 1966 issue of *Sci-Tech News* the then chair of the Sci-Tech Division, Frances M. Stratton, proposed one solution that still seems worthwhile.[1] She suggested that the Division prepare advertisements telling the advantages of sci-tech special librarianship, the ads to be placed in periodicals read by college students in these disciplines. Examples might be *Scientific American* and other titles widely examined by students. Some research might be needed to determine which periodicals would be best suited for an ad. My own suggestion is to consider campus-based student newspapers, which are generally widely-read and probably modest in costs for ads. One ad could reach all the sci-tech departments at a given school. We could make a priority list of which schools to start with; obviously, we couldn't reach them all at one time.

The *Journal of College Placement* was another idea in the Stratton column, useful for reaching placement counselors, who are usually ignorant about special librarianship in general, much less sci-tech versions. How can they recommend special librarianship as a career if they are unaware of it?

Why not consider attempting to reach out to potential recruits and career counselors on campuses? What do we have to lose?

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1. Stratton, Frances M. The recruitment challenge. *Sci-Tech News.* 25:117; 1966 Winter.